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THE SECRETARY OF HEALTH AND HUMAN SERVICES  
WASHINGTON DC 20201

MAY 22 1996

The Honorable Albert Gore, Jr.  
President of the Senate  
Washington, D.C. 205 10

Dear Mr. President:

I am respectfully submitting the report required by Section 4358(d) of the Omnibus Budget Reconciliation Act of 1990 (OBRA 90) , P.L. 101-508, which directed me to evaluate the Medicare SELECT Demonstration, i.e., a Medicare supplemental insurance product limited to 15 states for 3 years, effective January 1, 1992.

This letter report summarizes the following evaluation issues as required by section 4358(d):

- o Implementation issues;
- o Consumer access, satisfaction and informed consent;
- o Premium affordability, and;
- o Impact on Medicare program costs.

Section 4358 permitted organizations that issue SET ECT policies in the 15 demonstration states to use managed care options otherwise not permissible. The demonstration states designated by the Health Care Financing Administration (HCFA) are Alabama, Arizona, California, Florida, Illinois, Indiana, Kentucky, Massachusetts, Minnesota, Missouri, North Dakota, Ohio, Texas, Washington, and Wisconsin. Oregon and Michigan were among the original states but withdrew due to a lack of interest and were replaced by Illinois and Massachusetts.

### BACKGROUND

The majority of Medicare beneficiaries have some type of private **health** insurance coverage to supplement their Medicare coverage. Before 1980, individual Medicare supplemental policies were governed only by state insurance regulations. Section 1882 of

the Social Security Disability Amendments of 1980 provided for voluntary national minimal standards developed by the National Association of Insurance Commissioners for marketing Medigap plans. Over the next 10 years, concerns about continued marketing abuse, inadequate enforcement of voluntary standards, and consumer confusion led Congress to enact provisions in OBRA 90 that significantly strengthened the Medigap law. Among the new provisions were mandatory benefit standards for Medigap policies, penalties for violations, and the Medicare SELECT demonstration authority. Regulations limit the number of different Medigap policies that can be sold to no more than 10 standard benefit plans which are designated "A" through "J". Plan A is the basic benefit package. Insurers are not permitted to change the combination of benefits or the letter designations.

Section 4358 of OBRA 90, which authorized § SELECT, also authorized an important exception **from** the general Medigap requirements for SELECT plans. To the extent a provider network is in place, full supplemental benefits may be paid only when covered services are received **from** network providers. In addition, regulations issued by the Inspector General permit plans to negotiate disregards (discounts) of the Part A hospital deductible and coinsurance without violating Medicare anti-kickback regulations. Both exceptions, but primarily the disregard exception, allow SELECT insurers to offer lower premiums than can be offered by standard Medigap plans.

The demonstration expiration date was extended through June 30, 1995, by the Social Security Act Amendments of 1994 (P.L. 103-432). In July 1995, Congress extended the demonstration authority for an additional 3 years through June 30, 1998, and expanded it to all states that wish to participate. SELECT will become a permanent program unless it is determined that SELECT enrollees have less access to services than or pay higher premiums for comparable coverage than traditional Medigap enrollees; or that costs to the Medicare program are significantly increased due to Medicare SELECT.

Periodically, information has been provided to Congressional staff, the industry, and to the public as the evaluation progressed. The comprehensive SELECT case study report (February 1994) was circulated widely among Congressional staff and the industry and has been available to the public. Preliminary findings were communicated to Congressional **staff** in June 1995 and **final** impact results were forwarded in September 1995.

The SELECT evaluation study design includes (1) case studies of all SELECT states (Lubalin et al, 1994), (2) a mail survey of insurers and HMOs in SELECT states who do not offer SELECT policies, (3) a telephone survey of SELECT and **nonSELECT**

enrollees in 6 states, and (4) Medicare claims and administrative data analyses for SELECT beneficiaries and a comparison group of **nonSELECT** beneficiaries.

### CONCLUSIONS

Evaluation findings produced mixed results. Access to services and satisfaction with policies is the same for both Medicare SELECT and traditional Medigap policy holders. In regard to cost to the Medicare program, the original premise of SELECT was that it would reduce aggregate health care costs because SELECT insurers would have an incentive to establish cost-effective provider networks. On the basis of the case study, it would be expected that there would be little or no effect of SELECT on utilization or costs. However, in the first 3 years of the SELECT demonstration, Medicare program costs increased in 5 participating states, decreased in 4 states and were not affected in 2 states. Cost increases were generally related to Part B utilization.

In regard to cost to beneficiaries, SELECT enrollees generally enjoy lower premiums than beneficiaries who purchase competing products at age 65 (although SELECT products may not be the lowest priced product available). However, as beneficiaries age, the SELECT price advantage will diminish because many SELECT insurers use attained age premium pricing. By age 75, SELECT premiums are more expensive than the comparison community rated product. It should be noted that attained age rating is also common for standard Medigap policy pricing.

A concise HCFA staff summary of findings and the report, "Evaluation of the Medicare SELECT Amendments: Final Report" prepared jointly by a HCFA contractor, the Research Triangle Institute and their subcontractor the Health Economics Research, Inc. are enclosed.

I am also sending a copy of this letter report to the Speaker of the House of Representatives.

Sincerely,



Donna E. Shalala

Enclosures

Health **Care** Financing Administration Staff Summary  
of the  
“\*Evaluation of Medicare SELECT Amendments: Final Report”

Summary **findings** are organized below by the following evaluation issue areas --  
(a) implementation, (b) consumer access, satisfaction and informed consent, (c) premium affordability, and (d) impact on Medicare program cost.

(a) Implementation:

The following section is based on an update of the contractor’s case study report (February 1994) and the insurer/HMO survey.

- o As of November 1, 1995, there were approximately 489,000 Medicare beneficiaries enrolled in SELECT plans in **all** demonstration states, excluding Massachusetts because it has no enrollees. This represents 2.8 percent of Medicare beneficiaries in the demonstration states. Please see Exhibit 3.1 of the contractor’s final report, “Evaluation of the Medicare SELECT Amendments: Final Report .”
- o Since the case study report was submitted, most growth in SELECT participation has occurred among commercial insurance companies with minimal growth among **HMOs** and **Blue Cross/Blue Shield (BCBS) affiliates**. Nonetheless, about 75% of SELECT enrollment is attributable to **3** large BCBS **affiliates**.
- o Implementation of SELECT varied significantly **from** the implicit legislative model.
- o There is a small group of Medicare supplement insurers that is **vital**ly interested in SELECT but most service corporations, commercial insurers, and **HMOs** have little interest.
- o State insurance departments and SELECT insurers reported no instances of beneficiary grievances or problems regarding SELECT products.

An implementation issue **that** had adverse impact on evaluation timeliness was data availability. Unlike HCFA sponsored demonstrations, SELECT is a private-sector insurance **product**, not a public program. HCFA had no leverage to persuade insurers to participate in the evaluation. Although Medigap regulations were useful in gaining

cooperation **from** SELECT insurers, they did nothing to assure appropriate data were collected by insurers nor to assure participation of **nonSELECT** insurers for the comparison group.

(b) Consumer access, satisfaction and informed consent:

The following section is based on descriptive statistics generated from the contractor's telephone survey in 6 states of SELECT beneficiaries and a comparison group of Medicare beneficiaries owning standard Medigap policies.

- o Of beneficiaries identified as Medicare SELECT enrollees by insurers, 23 percent did not know they were in Medicare SELECT plans or plans that used physician or hospital networks. While it is possible they did not consider using network providers (primarily hospitals) as a "restriction" of their **free** choice of providers, it is equally possible that the sales presentation may not have adequately informed them or that they simply forgot.
- o There are no significant health status **differences** among SELECT and **nonSELECT** beneficiaries.
- o Compared to the nationwide population of Medicare beneficiaries who own individually purchased Medigap plans, SELECT beneficiaries are more likely to be males, aged 65-69, black or Hispanic. Compared to a sample of standard Medigap purchasers matched on age and sex, SELECT beneficiaries were more **likely** to have an elementary or high school education, have a low income and to have retired **from** service or crafts/trade occupations.
- o Reasons for purchasing SELECT were varied. A large percentage of both SELECT and **nonSELECT** beneficiaries did not **know** why they chose their current Medigap policy. The most important factor in choosing **SELECT** at all income levels was the cost of premiums. Recommendations of family and **friends** were less important **to SELECT** enrollees than for the comparison group.

Many SELECT beneficiaries who had a previous Medigap policy reported that their SELECT premium was a lot less expensive than previous premiums.

Very few SELECT or comparison beneficiaries attributed their purchase decision to the **influence** of an insurance agent.

- o There is no significant difference in overall satisfaction levels between SELECT and comparison beneficiaries with their particular policy choice. About 90 percent of both were satisfied or very satisfied with their plans.
- o Overall, insurers paid out-of-network physician claims about 50 percent of the time and were more likely to pay out-of-network hospital claims. Emergencies were by far the most common reason for out-of-network hospital use.

(c) Premium Affordability

Comparison of premiums is simplified only somewhat by the standardization of Medigap benefits under OBRA 90, which limited the number of **different** Medigap policies to no more than 10 standard benefit plans. Premiums depend not only on benefits covered but also on medical **underwriting** and other factors. Some insurers use *issue age* premiums and others use *attained age* premiums. Attained age rating permits regular rate increases based solely on the policy holder's age. Holding all else equal, issue age premiums will be higher than attained age premiums for younger **persons** and lower for older persons, tending to bias comparisons in favor of the SELECT plans (as cheaper) for younger beneficiaries.

Two types of comparisons were made -- (1) comparisons within company to control for variation in actuarial policies and historical experience, and (2) comparisons to the similar policy written by Prudential for the American Association of Retired Persons (**AARP**). The **AARP** plan was chosen as the standard of comparison because it is essentially community rated, it is the largest Medigap insurer in the nation, it sells all 10 standard plans **in** almost every state and it is regarded as a relatively low-cost plan. The **AARP** plan is not necessarily the lowest priced product available, i.e., there may be cheaper plans in a state for which we have no data.

The following section is based upon analysis of premium data obtained directly **from** SELECT and **nonSELECT** insurers for the case study. All comparisons are for 1995 premiums and made for each of the A-J standard plans. The Omnibus Budget Reconciliation Act of 1990 limited the number of **different** Medigap policies that can be sold to no more than 10 standard benefit plans which are designated "A" through "J". Plan A is the basic benefit package. Each of the other 9 plans includes the basic benefits plus additional benefits in **different** combinations. Insurers are not permitted to change the combination of benefits or the letter designations. **In** the study comparisons,

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California, Minnesota, and Wisconsin were excluded because SELECT plans in those States do not conform to the 10 standard Medigap policies and Massachusetts is excluded because it has no SELECT plans.

- o SELECT is clearly priced lower than the same benefit package offered as a standard non-network product *by the same company*.
  - Except for a few plan A policies, median premiums for a **65-year** old female non-smoker are 17-22 percent lower than the same benefits package *offered by the same company for their comparable standard plan*. An almost identical pattern was found for **75-year** old non-smoking women.
- o About 75% of SELECT plans are less expensive than the comparable Prudential/m plan for a **65-year** old non-smoking woman but this depends upon the type of policy bought.
  - Five SELECT policies -- A, E, H, I, and J were **from** 9 to 45 percent more expensive than the comparable **Prudential/AARP** policy. Five policies B, C, D, F and G were **from** 3 to 23 percent less costly than the comparable **Prudential/AARP** policy.
- o For the **75-year** old women, the costs reverse. The impact of attained-age premiums increases the average SELECT price compared to the community-rated **Prudential/AARP** product. SELECT policies for **75-year** old women are more expensive for 63 percent of the comparisons.
  - Median premiums for SELECT are always higher for the **75-year** old for every type plan except for plans B and D, which are about 3 percent lower.
- o The **shift** between premiums for **65-year** old and **75-year** old women probably reflects the use of attained age premiums by many SELECT products compared to the use of community rating by Prudential. It should be noted that attained age rating is also common for standard Medigap policy pricing.

Since discounts on the Part A deductible are the only source of savings for hospital-only SELECT plans, the consistently lower premium for the SELECT version of plan A, which does not cover the Part A deductible, suggests that the premiums may be set to encourage or discourage purchase of standard plan A. Standard plan **A**, which is viewed

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by insurers as an inferior product, only covers Part A (hospital) and Part B (medical) coinsurance and blood. It does not cover skilled nursing facility coinsurance, deductibles, excess charges, foreign travel emergency, at home recovery, prescription drugs or preventive medical care benefits offered in the other 9 more comprehensive plans.

### (d) Impacts on Medicare program costs and utilization:

The following section is based on multivariate statistical techniques to evaluate the cost and utilization consequences of SELECT enrollment. Analyses are for 11 states based on 15 quarters of all Medicare claims data (professional and institutional bills) for a 4 year interval **from** 1991 (**pre-Select** base line data) through late 1994, for both SELECT and comparison beneficiaries. Illinois, Massachusetts and Washington were excluded because these states had no enrollment in an approved SELECT product by February 1994 and North Dakota was omitted due to insufficient sample size.

Analysis was conducted separately for each state since the programs were implemented so differently in each state. A 4-way quasi-experimental design was used, comparing the before-and-after **enrollment** experience of Medicare beneficiaries newly enrolled in SELECT products to the before-and-after experience of a matched sample of Medicare beneficiaries newly **enrolled** in a post-OBRA 90, standardized non-network Medigap product. The sample was matched on age, sex, and ZIP code.

Although a variety of models have been estimated, the simple fixed effects model was chosen because its results are the most reliable and stable. In addition, this model provides the strongest control for selection bias.

Expectations were that SELECT plans would save money for beneficiaries and for the Medicare program, or at least be budget neutral for Medicare. The following points summarize key cost **findings**. The positive and negative percentages in parentheses are the estimated differences in cost between the SELECT and comparison group in each state, controlling for individual beneficiary characteristics.

- o Of the 11 states, SELECT was significantly cost increasing in 5 (Alabama, Arizona, Indiana, Texas and Wisconsin), significantly cost decreasing in 4 (California, Florida, Missouri, and Ohio), and had no significant effect in 2 states (Kentucky and Minnesota). Please see Exhibit 6.3 of the contractor's final report.

Increased costs to the Medicare program ranged from a low of 8.3 percent in Texas to a high of 45.2 percent in Indiana. Savings to the Medicare program ranged **from** 17.3 percent in Ohio to

4.3 percent in Florida.

- o The simple average of all 11 states, including ones with insignificant effects, is + 5.7 percent. Excluding Indiana and Ohio, the 2 states with the smallest sample sizes and most extreme values, the simple average of the remaining estimates is + 3.9 percent. Both estimates are significant at the .01 level.

The 11 states are viewed as 11 independent tests of the SELECT concept because the implementation varied so greatly among the states. Any further value that averages the results of the states, including the simple arithmetic average, should be used cautiously because of the variation among the states.

- o Alabama (+15.7 percent) -- SELECT is associated with increased total Medicare costs primarily due to ambulatory and inpatient costs. Increases in inpatient costs are likely caused by the substantially greater percentage of SELECT admissions to teaching hospitals in Alabama.
- o Arizona (+16.4 percent) -- SELECT increased aggregate Medicare costs due to increased costs in physician office settings, which appears to be predominately specialists' costs and associated ancillary service costs. **Although** all 6 utilization measures were **significantly** cost increasing, SELECT patients are less likely to be admitted to a teaching hospital or a disproportionate share hospital. Admissions to less costly hospitals appears to offset cost of increased admissions.
- o California (-8.2 percent) -- **SELECT** is associated with total Medicare cost savings in California. Savings are attributed entirely to ambulatory care savings. Physician office and hospital outpatient department (HOPD), primary care physician (PCP), specialists and ancillary services costs are all reduced. No savings on either inpatient costs or utilization are indicated. The characteristics of SELECT and **nonSELECT** hospital admissions are **similar**.
- o Florida (-4.3 percent) -- SELECT is associated with total Medicare cost savings. Like California, cost savings are from ambulatory care. Both physician office and HOPD costs are reduced. No savings **from** inpatient costs was found although a somewhat lower percentage of SELECT patients are admitted to teaching hospitals.

- o Indiana (+45.2 percent) -- SELECT had a significant and sizable cost increasing effect on Medicare aggregate costs. Seven out of 8 cost measures increased. Since only 2 utilization measures were significant, it is possible that they experienced more **outlier** hospital admissions driving costs up. We cannot rule out selection bias in Indiana.
- o Kentucky (+1.2 percent) and Minnesota (+0.5 percent) -- No significant SELECT effects were detected in either state.
- o Missouri (- 11 .0 percent)-- A consistent pattern of total Medicare cost reduction is associated with SELECT in Missouri. Only inpatient costs are not reduced. Cost savings are achieved in spite of a substantially greater use of teaching hospitals.
- o Ohio (-17.3 percent)-- Although overall Medicare costs are reduced, only ancillary costs are significantly reduced of the 7 cost measures. Utilization measures indicated that admissions and days are reduced. Nonetheless, SELECT patients are more likely to use both teaching and disproportionate share hospitals. Apparently decreased utilization offsets the higher reimbursement rates. The **finding** of overall SELECT cost savings to Medicare appears to be an artifact of the cumulative effect of multiple **not-quite-significant** measures, which results in significant savings overall.
- o Texas (+8.3 percent)-- In the aggregate SELECT has increased Medicare costs. Seven out of 8 cost measures were significantly greater for the SELECT beneficiaries; most utilization measures also increased.
- o Wisconsin (+16.1 percent)-- SELECT was estimated to increase aggregate Medicare costs. Physician office costs (both PCP and specialty) were found to be cost increasing. The office visit rate is increased.

On balance, cost factors are **different** in every state producing mixed impact results. There is no simple explanation for either reduced or increased costs under SELECT. Five states showed cost increases, 4 states show cost decreases; and 2 states show no affect. Moreover, there is no obvious SELECT implementation pattern that would explain the variation in findings among states. Nonetheless, the fixed effects approach provides the strongest available control for alternative explanations, giving confidence that **findings** cannot be easily attributed to either selection or specification bias.

### CONCLUSIONS

Evaluation findings produced mixed results. Access to services and satisfaction with policies is the same for both Medicare SELECT and traditional Medigap policy holders. In regard to cost to the Medicare program the original premise of SELECT was that it would reduce aggregate health care costs because SELECT insurers would have an incentive to establish cost-effective provider networks. On the basis of the case study, it would be expected that there would be little or no effect of SELECT on utilization or costs. However, in the **first** 3 years of the SELECT demonstration, Medicare program costs increased in 5 participating states, decreased in 4 states and was not **affected** in 2 states. Cost increases were generally related to increased Part B utilization.

In regard to cost to beneficiaries, SELECT beneficiaries generally enjoy lower premiums than beneficiaries who purchase competing products at age 65 (although SELECT products may not be the lowest priced product available). However, as beneficiaries age, the SELECT price advantage will diminish because many SELECT insurers use attained age premiums. By age 75, SELECT premiums are more expensive than the comparison community rated product. It should be noted that attained age rating is also common for standard Medigap policy pricing.

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RTI Project No. **32U-5531**

## Evaluation of the Medicare SELECT Amendments

Final Evaluation Report

Task 10, Deliverable 14

by

Research Triangle Institute and Health Economics Research, Inc.

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Many individuals and organizations have **made** important contributions to this project during the past three years.. **Among** the most important is Jim Lee, a valued colleague and friend, who led the team at Health **Economics** Research **and** made: fundamental contributions to every phase of the project. Lynn **LeMaster** coordinated all elements of the project, including the participation of the 26 **SELECT** insurers and the beneficiary and insurer surveys. Rezaul Khandker and Edward Norton solved difficult econometric problems and made essential contributions to the analysis and **interpretation** of results. Jim Lubalin, Lauren McCormack, Jenny **Schnaier**, Deborah Gibbs, and. Angela Merrill coauthored the Case Study Report. **Nora** Rudenko, Helen Margulis, Annie **McNeill**, and Emily **Coleman** provided invaluable computer programming support. B.J. York, **Melodie** Rush, **Vince Iannacchione**, Frank Potter, and Jennifer McNeill drew the samples and ran the beneficiary survey. Jerry Cromwell, **Randy** Ellis, and Gary **Zarkin** consulted on the **cost** models, **Our** thanks also to the many others at RTI and HER who contributed their time and effort at various points,

The study would have been **impossible** without the cooperation of the insurers who participated in the case studies and provided enrollment **data**. Twenty-four of the 26 **SELECT** insurers participated and several other insurers contributed time for interviews and insights into the **SELECT program**. In particular,, the study was significantly enhanced by those insurers who do not offer **SELECT** products but who, under no obligation whatsoever, provided data for the comparison group. Prudential **Insurance Company**, Blue Shield of California, Blue Cross Blue Shield of Missouri, Blue Cross Blue Shield of **Ohio**, Community Mutual Insurance Company, and Blue Cross Blue Shield **United** of Wisconsin all made invaluable contributions,, **Brice** Oakley, formerly of the Blue Cross **Blue Shield Association**, and Morris Melloy of the **National** Association of Insurance Commissioners helped us contact insurers, understand their concerns, and find solutions.

Finally,, we wish to thank our HCFA Project Officers, Rose **Hatten** and Sherry Terrell, who provided consistent, professional direction, valuable insights, and unfailing support throughout the project.

Steven A. **Garfinkel**  
Project Director



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# Evaluation of the Medicare SELECT Amendments Final Report

## 1.0 Introduction and Background

### 1.1 Introduction

This is the **final** report **under** contract **HCFA 500-93-0001**, the Evaluation of the Medicare SELECT Amendments, sponsored by the Office of Research and Demonstrations, Health Care Financing Administration (**HCFA**). A previous report on this evaluation, the Case, Study **Report** (**Lubalin et al.**, 1994) described the process of **implementing** the SELECT program through **mid-**1993, about half-way through the original **3-year** (demonstration period. The final report addresses additional implementation issues and the impact of SELECT on cost, utilization, and beneficiary satisfaction,, based on quantitative: analysis of claims and survey data.

The remainder of this chapter provides a description of Medicare SELECT and its legislative history. Chapter 2 describes the evaluation design. Chapter 3 recaps the results of the case studies and provides updated information on premium differences between SELECT and competing products. It provides important contextual information for the interpretation of the quantitative data. Chapter 4 describes Medigap insurers and **HMOs** in the demonstration states that do not offer SELECT products and why they do not,. Chapter 5 describes the characteristics of beneficiaries who purchased **SELECT** products, factors associated with the decision to purchase a SELECT product, and satisfaction with SELECT products. Chapter 6 assesses the impact of SELECT participation on utilization and the cost of care to the Medicare program. Chapter '7 discusses beneficiary characteristics associated. with utilization and costs. Chapter 8 presents our conclusions.

### 1.2 Medicare Coverage and the Need for Supplemental Insurance

**Like** many insurance programs, Medicare has deductible and coinsurance **requirements**, limitations on payments to providers, and **coverage** for a defined set of services. Although **Medicare** coverage is extensive, it **covered** less than half of per capita personal health **care**

expenditures for persons 65 years of age and over in 1987 (Waldo et al., 1989). This means that Medicare beneficiaries **remain** at risk for substantial health care costs.

Since the early days of the Medicare program, beneficiaries have sought to insure against this risk by obtaining supplemental coverage through employers (or former employers), unions, state Medicaid programs, and privately purchased individual insurance policies. Other Medicare enrollees have joined health maintenance organizations (**HMOs**), which offer lower **premiums**, minimal deductibles and copayments, or coverage of additional services. Estimates from several sources over the last decade indicate that about 70-80 percent of non-institutionalized Medicare beneficiaries have some coverage to supplement Medicare. About half this group are covered by individually purchased health insurance policies explicitly linked to Medicare and intended to pay for Medicare cost-sharing requirements (deductibles and copayments), for charges in excess of amounts allowed by Medicare, sometimes for additional units of service for Medicare covered services, and frequently for services not covered by Medicare (Chulis et al., 1993; Short and Vistnes, 1992; Short and Monheit, 1987). These are generally referred to as “Medigap” or Medicare supplemental insurance policies.

### 1.3 Regulation of Medicare Supplemental Insurance Programs

**Prior** to the enactment of the Social Security Disability Amendments of 1980, Medicare supplemental policies were governed only by state insurance regulations and not by federal law. Congressional concern with abuses in marketing Medigap policies (e.g., inadequate or misleading information about plans, marketing of overlapping or superfluous plans to gullible seniors, excessively low loss ratios) led **to** the enactment of a new Section 1882 of the Social **Security** Act to establish federal standards for Medigap plans.’ This legislation relied on model standards for **Medigap** plans developed by the National Association of Insurance Commissioners (**NAIC**). Although federal legislation made these standards voluntary, most states adopted the **NAIC** or more stringent standards for regulating Medigap policies and continued complete regulation of

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<sup>1</sup> Because the questionable practices that led to this legislation do not apply in the case of employer group benefit plans, which tend to be **purchased** by benefit managers who **are** more sophisticated buyers, the legislation (and subsequent amendments to it), addressed only individually purchased individual or group Medigap plans.

Medigap policies in their states (Rice and Thomas, 1992). In states **that** did not adopt these standards or prior to state adoption, individual insurers could **voluntarily** seek “certification” from the U.S. Department of Health and **Human Services (DHHS)** that their plans **met** minimum federal standards.

Over the next decade, a number of changes were made to the law and adopted into **NAIC** standards, but much of the **legislative activity was concerned** with services for which Medicare provided little or no coverage (e.g., outpatient drugs, long-term care) (**Lundy**, 1991). After the adoption and **subsequent** repeal of the: Medicare Catastrophic **Coverage** Act, Congressional interest again focused on Medigap policies. Concerns involved issues such as continuing marketing abuses, inadequate **enforcement** of the **voluntary** standards, confusion among consumers because of the large number of products on the market, and lower loss ratios in practice than were stipulated in **the** model standards. This led to new legislation in the Omnibus Budget Reconciliation Act of 1990 (**OBRA 1990**) that significantly overhauled the model NAIC standards and, for the first time, **provided** (1) mandatory **federal standards** for such policies and (2) federal penalties for violations of these standards.

Sections 43514358 of this legislation **provided** major amendments to the **Medicare** regulatory provisions contained in Section 1882 of the Social **Security** Act. The law **changed from** voluntary to mandatory the minimum standards for Medigap policies. All such policies must now either be sold in a state that applies and **enforces** the **NAIC** standards (which were amended on July 1, 1991, to comply with this **law**<sup>2</sup>) **or** must be certified by the Secretary of the U.S. **DHHS** as meeting the standards. In addition, Section 435 1 of the legislation directed **NAIC** to develop a set of **10** specific benefit packages -- one: including only a **set** of core mandatory benefits and nine others **that** include the core plus optional benefits,. **Insurers** must sell only these policies as **Medigap** policies after dates stipulated in the law, and states can further restrict the policies **available** to the one mandatory and a subset of the nine optional packages.

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<sup>2</sup> These model **plans and accompanying explanatory** materials **were** published in the ***Federal Register*** on August **21, 1992**, but were effective **for** all states on **the earlier** of (1) the. date the state adopted the: NAIC **model** standards or (2) July **30, 1992**, one year after the development of **the** standards by **NAIC**.

The 10 plans subsequently developed by NAIC are designated by the letters A through J. Except in three states with waivers from the standardization requirement, only plans A through J may be sold as Medicare supplements. Exhibit 1.1 provides a brief overview of the benefits included under each of these standard plans. The basic or core plan, included as part of every other plan, is plan A. It covers the Medicare Parts A and B coinsurance plus the cost of blood products not covered by Medicare Parts A and B. All other plans also cover the Part A deductible and all but plan B include skilled nursing facility coinsurance and foreign travel emergency care. The **remaining** benefits, Part B deductibles, Part B excess charges, at-home recovery, outpatient prescription drugs, and preventive medical care, are included in anywhere from 2 to 4 plans in different combinations (and sometimes at different benefit levels). The most generous plan, Plan J, includes all of these benefits at their maximum levels.

Other changes to the Medigap provisions arising from this legislation include: guaranteed renewability, continuation, and replacement of Medigap policies without consideration of the patient's health status (Section 4352); strict enforcement standards and federal penalties for violations by insurers and agents (Section 4353); procedural requirements to prevent the sale of duplicate Medigap policies (Section 4354); minimum loss ratio standards and premium refund provisions in the event that minimums are not met (Section 4355); exclusion of plans offered by **HMOs** and other direct service organizations under agreement with Medicare from classification as a Medigap policy (Section 4356); limitations on exclusions or rating of policies for preexisting conditions (Section 4357); and, of most direct interest here, creation of a 3-year demonstration, in up to 15 states, of Medicare **SELECT** plans, in which Medicare beneficiaries may obtain Medigap coverage by enrolling in a preferred provider organization (**PPO**) or similar network that provides benefits corresponding to one of the standardized plans (Section 4358).

#### 1.4 Medicare SELECT Program

In addition to making substantial changes in traditional Medigap policies, OBRA 1990 explicitly recognized the development of Medigap options linked to managed care networks (**PPOs** or **HMOs**). Specifically, Section 4358 of OBRA 1990 permits:

- The use of managed care options for Medicare supplements in up to 15 states. **HCFA** selected **15--** Alabama, Arizona, California, **Florida**, Indiana,

**Exhibit 1.1**  
**Overview of Standardized Medicare Supplemental Benefit Plans, 1993**

BENEFIT PROVISIONS	PLAN A	PLAN B	PLAN C	PLAN D	PLAN E	PLAN F	PLAN G	PLAN II	PLAN I	PLAN J
Core Benefits	X	X	X	X	X	X	X	X	X	X
Skilled Nursing Facility Coinsurance (Days 21-100)			X	X	X	X	X	X	X	X
Part A Deductible		X	X	X	X	X	X	X	X	X
Part B Deductible			X			X				X
Part B Excess Charges						100%	80%		100%	100%
Foreign Travel Emergency			X	X	X	X	X	X	X	X
At-Home Recovery				X			X		X	X
Prescription Drugs								1	1	2
Preventive Medical Care					X					X

Core Benefits pay the patient's share of Medicare's approved amount for physician services (generally 20%) after \$100 annual deductible, the patient's cost of a long hospital stay (\$169/day for days 60-90, \$338/day for days 91-150), approved costs paid by Medicare after day 150 to a total of 365 days lifetime), and charges for the first 3 pints of blood not covered by Medicare.

Two prescription drug benefits are offered:

1. a "basic" benefit with \$250 annual deductible, 50 percent coinsurance and a \$1,250 maximum annual benefit (Plans H and I above), and
2. an "extended" benefit (Plan J above) containing a \$250 annual deductible, 50 percent coinsurance and a \$3,000 maximum annual benefit.

Kentucky, Michigan, Minnesota, Missouri, North Dakota, Ohio, Oregon, Texas, Washington, and Wisconsin. Oregon and Michigan withdrew from the SELECT program shortly after it began, due to lack of interest among insurers. They were replaced by Illinois and Massachusetts on June 30, 1993.

- Marketing of Medigap policies that are in all respects like one of the NAIC model Medigap plans except that full benefits are paid only when network providers are used, other than in an emergency (i.e., Medicare SELECT policies). Three of the states HCFA selected, Massachusetts, Minnesota, and Wisconsin, received waivers from the requirement that their plans correspond exactly to the 10 NAIC-approved plans because they already had acceptable programs in place that restricted the number and types of policies that could be offered. **In** these states, insurers are permitted to market Medicare SELECT plans that correspond to one of the existing Medigap plans available in those states.
- Marketing of Medicare SELECT plans only by networks that: (1) offer sufficient access; (2) have an ongoing quality assurance program, and (3) provide full and documented disclosure at the time of enrollment of (a) network restrictions, **(b)** provisions for out-of-area and emergency coverage, and (c) availability and cost of all available Medigap policies without the network restrictions.
- Significant penalties for networks found to (1) restrict the use of medically necessary services, (2) charge excessive premiums, (3) expel an enrollee except for nonpayment of premiums, or (4) withhold required explanations or fail to obtain **required** acknowledgment at the time of enrollment.
- Contracts with Medicare SELECT insurers to perform Medicare utilization review functions in lieu of such functions being performed by carriers or fiscal **intermediaries**.

Network-based Medigap plans existed before this legislation as both regulated and unregulated products. Regulated network-based Medigap products were subject to all preexisting restrictions on Medigap plans contained in Section 1882 of the Social Security Act. For example, to qualify a product with network restrictions as a Medigap policy, insurers would have to pay the full coinsurance amount for Medicare Part B expenses after a beneficiary met the annual deductible regardless of whether the services were rendered by in-network or out-of-network physicians. **In** addition, they would have to abide by utilization review decisions of intermediaries and carriers that would leave them with limited leverage on the **utilization** decisions of patients

and providers, By distinguishing Medigap SELECT products from standard Medigap policies, the legislation attempted to increase the attractiveness of such coordinated care products to insurers, providers, and beneficiaries :for the following reasons:

- **For Insurers.** It **offered** them the opportunity to: ( 1) provide stronger incentives to patients for in-network use by allowing them to reduce or eliminate coverage for Medicare cost-sharing (though not for basic Medicare benefits) for out-of-network use; (2) contract with **HCFA** for **utilization** review, in lieu of **carrier/fiscal** intermediary review, and thereby to share **the** cost of these reviews with the Medicare program; and (3) increase market share by **offering** a lower-cost product in comparison to other Medigap products.
- **For Providers.** It offered them expanded market share for practicing **cost-effectively** and/or accepting the utilization **or** cost **controls** imposed by the insurer,
- **For Beneficiaries.** It offered them cost savings on their Medigap premiums provided they used network. providers **for** in-area services.

In addition to regulated **pre-OBRA** network products, some **HMOs** and **PPOs** operated **unregulated** network-based products for Medicare beneficiaries. These plans were not regulated as Medigap products because they were not **viewed** as insurance in state regulations. Many were offered by provider-based **PPOs**, which are not regulated in California, for example, because they are not insurance **companies** or service corporations. Some of these products were offered by **HMOs**. Anecdotal information from insurance departments and **HMOs** indicates that these unregulated products continued to be offered for sale after the provisions of OBRA 1990 took effect, However, some of the HMO products have recently converted to Medicare risk contracts.

Proposals to expand the Medicare **SELECT** program were introduced shortly after it began For example, in May 1993, soon after the SELECT program took effect, Senator John Chafee (R-RI) introduced Senate Bill 934 that would have extended the program to all states, removed the **3-year** limit on such **programs**, allowed networks to offer combinations of benefits with different **composition** but **the** same actuarial value as one of the **10 NAIC plans**, and encouraged more **participation** by **HMOs** in offering Medicare SELECT policies. The bill was intended to address some features of **the** original Medicare SELECT legislation that were believed

to discourage insurers from offering network-based Medicare supplements. For example, limiting the sale of network-based Medicare supplements to 15 states forced insurers to discontinue similar plans in other states that were operating before July **1, 1992**. The 3-year sunset provision potentially discourages insurers that have not offered network-based plans in the past from developing a network product because they may not be able to amortize their start-up costs in 3 years. No action was taken on this bill. A second bill was introduced in the House (**H.R. 2770**) on July **28, 1993** by Reps. Nancy Johnson (R-CT) and Earl Pomeroy (D-ND). This bill was intended to extend Medicare SELECT to all states. Again, no action was taken. However, the Social Security Act Amendments of 1994 (**P.L. 103-432**) extended the termination date of the Medicare SELECT program from December 3 **1, 1994** to June **30, 1995**.

On July 7, 1995, the President signed the amendments to **OBRA 1990 (P.L. 104-18)**, which continued and modified Medicare SELECT in the following ways:

- The authority to approve Medicare SELECT products was extended to all states that wish to participate.
- The states have this authority through June **30, 1998** (three additional years beyond the three-and-one-half years of the **15-state** demonstration).
- Medicare SELECT will become permanent **unless** the Secretary of Health and Human Services finds that it has (1) not resulted in savings of premium costs to beneficiaries compared to **nonSELECT** Medigap policies; (2) resulted in significant additional expenditures for the Medicare program; or (3) resulted in diminished access and quality of care.

## 2.0 Medicare SELECT Evaluation Design and Methods

The evaluation is designed to produce two types of information: descriptive information about how Medicare SELECT was implemented and explanatory information about how Medicare SELECT has influenced cost and utilization. For most Medicare and Medicaid demonstrations, HCFA designs and implements a small number of programs with specific features established in advance. In this case, the **Medicare** SELECT legislation and regulations grant State insurance commissions and insurers such varied **opportunities** for design and implementation that an extensive description of the structure and **process** of Medicare SELECT implementation is unusually important. Thus, the first major element of the **evaluation** is an implementation assessment which includes (1) a set of descriptive case studies of Medicare SELECT activities in all SELECT States, (2) a quantitative description of the reasons why insurers in SELECT States do not participate in SELECT, and (3) a quantitative description of how Medicare SELECT enrollees differ from Medicare beneficiaries **enrolled** in Medicare **supplemental** plans that **do** not use provider networks.

The second major element of the analysis is designed to develop causal inferences about the impact of the Medicare SELECT program on **utilization** and cost of services. This analysis uses a quasi-experimental design with pre-intervention and post-intervention measures for SELECT beneficiaries and a comparison group to control for confounding factors in explaining the impact of the SELECT program. The structure of this approach is depicted in Exhibit 2.1

To accomplish these research objectives, the **evaluation** includes four types of data collection and analysis:

**Case Studies:** a. set of descriptive case studies of each SELECT state and a synthesis of the findings that describes patterns among the states. The case studies are based on site visits in the Spring and early **Summer** of 1993, periodic **telephone** updates, review of documents, and analyses of **aggregate** data supplied by insurers and **regulators**;

**Insurer Survey:** a mail survey of Medigap insurers and **HMOs** operating in states approved for the SELECT program but **who do** not offer SELECT policies;

**Exhibit 2.1**  
**Evaluation Approaches**

Study Component	Research Design	Main Data Sources
<b>Implementation Assessment</b>		
Description of <b>SELECT</b> Activities by State and Insuring Organization	Cross-sectional	Case Study, Insurer Surveys
Description of <b>SELECT</b> Beneficiaries and Comparison Group Beneficiaries and their Reasons for Choice	Cross-sectional	Beneficiary Survey
<b>Impact Assessment</b>		
Development and Testing of Causal Inferences Regarding Utilization and Cost	Nonequivalent <b>control</b> -group, quasi-experimental	Administrative Claims Data, Beneficiary Survey

**Beneficiary Claims Analyses:** analyses of Medicare claims and administrative data for SELECT beneficiaries and a comparison group of **nonSELECT** beneficiaries, in all SELECT states, to examine the impact of SELECT enrollment on the use and costs of Medicare services;

Beneficiary Survey: a telephone survey of **SELECT** and **nonSELECT** beneficiaries in six states approved for the SELECT program to identify the characteristics of beneficiaries who purchased SELECT policies, their reasons for doing so, and their satisfaction with SELECT;

The remainder of this chapter describes the sampling and data collection methods for each phase of the evaluation. Where relevant, the statistical approaches used in the analysis of these data are described with the presentation of results in Chapter 5 on beneficiary characteristics and satisfaction and Chapters 6 and 7 on cost and utilization. The descriptions of methods reflect the status of SELECT participation and enrollment at the time data were obtained for the study. They may not reflect the current status.

## 2.1 Case Study

The case studies involved three types of data collection and analysis:

1. Site visits and **telephone** discussions with the **staff of state regulatory agencies** (mainly insurance departments but also departments of health in states where they **regulate HMOs**, and state agencies on aging, in states where they are the grantee for **HCFA** consumer counseling grants), and **insurers** (including those who offer only Medicare SELECT, those who offer traditional **Medigap** policies as well as Medicare SELECT, and a small number of **major** insurers **who** do not offer Medicare SELECT);
2. Analysis of documents, reports, and **aggregate** data prepared by insurers and regulators including plans of operation, rate filings with state insurance commissions, and marketing materials;; and
3. Analysis of external data sets that describe the target population and service area.

The site visits used **semi-structured** interviews with regulators and insurers. Although the set of organizations we visited in each state was somewhat idiosyncratic to **that** state, in general, we met with (and/or interviewed by telephone) staff of the insurance department, the health department, the: state agency on aging, the state's Blue Cross Blue Shield (**BCBS**) plan(s), insurers offering Medicare SELECT, and other major insurers offering Medicare supplemental policies.

The interviews used a common topic guide to assure that all the important topics **were** covered and to provide continuity among the four **2-person** teams conducting the site visits. The topic guide was developed by the investigators and approved by HCFA staff. All site visitors took part in a 4-hour telephone training session to review the guide and assure a common understanding of the questions. The site visits were conducted between March and June 1993 and information was updated via **telephone** in February 1994. The investigators met in person once after seven states had been visited and again after all had been **visited** to review the data, identify common **findings**, and draw (conclusions).

The **site** visits took **place** in 13 of the **15** states. Illinois **and** Massachusetts replaced Michigan and Oregon as SELECT states in **July** 1993 and had not passed their SELECT legislation or received any SELECT **applications** from insurers by the time the site visit phase of the study was concluded. Telephone **interviews** were conducted **with** the departments of

insurance in Illinois and Massachusetts and in the two original SELECT states that withdrew from the program, Michigan and Oregon.

## 2.2 Insurer Survey

The insurer survey was conducted on a census of Medigap insurers and **HMOs** in the 15 SELECT states (including Illinois and Massachusetts) that were not participating in the Medicare SELECT program at the time of the survey. A list of approved Medigap insurers was obtained from the department of insurance in each state and a list of **HMOs** in each state was obtained from the directory of **HMOs** published by the Group Health Association of America (GHAA, 1994). Insurers and **HMOs** offering SELECT were deleted from the lists so that only nonparticipating organizations were surveyed.

The departments of insurance supplied the name of a contact person at the insurance company or HMO and the address. Our intent was to obtain data at the level in the insurance company at which the decision to participate in SELECT would be made. However, because of the complex corporate structure of many insurance companies, we were often uncertain about whom to contact. We undertook several activities to determine the appropriate survey respondent before the questionnaires were mailed.

- Because many insurance companies operate in several SELECT states, we often obtained the same name and address from more than one department of insurance. We deleted duplicates from the combined list so that these contacts would receive only one questionnaire.
- It is not unusual for decentralized insurance companies to operate regional offices in SELECT states and we often received the name and address of a contact at a regional office. But when more than one regional **office** of the same company was named by the departments of insurance, it was not possible to know in advance if the regional offices or the corporate headquarters had the authority to decide about participation in Medicare SELECT. When different regional offices of the same company were listed, we left them on the list under the assumption that if they had the responsibility for **filing** applications with the department of insurance they most likely had the authority to decide about SELECT participation.
- We telephoned the contact persons named by the departments of insurance to **confirm** that they were the appropriate respondent and to try to sort out

the uncertainties caused by operation in multiple states and decentralized corporate structure .

Questionnaires were mailed to everyone on the **corrected** list in December 1994. A second questionnaire was mailed to nonrespondents in January 1995 and telephone follow-up calls were made to the remaining **nonrespondents through** March 1995. Despite the efforts to identify the correct respondent prior to mailing, **we encountered** several situations that complicated the determination of an acceptable response.

- Within a single corporation, some **regional** office staff sent their questionnaires to corporate headquarters and others did not. Thus, we sometimes had responses from both the corporate headquarters and a regional office.
- We mailed to some insurance companies and **HMOs** that were subsidiaries of other insurance companies on our list. **However**, we were unable to identify the **relationship** before the survey because the names and addresses of the companies differed. The problem became apparent when the questionnaires sent to one company were returned by the corporate headquarters of another,

These multiple opportunities for selection complicated the analysis because the definition of the population to which we were making inferences was not clear. We resolved the problem by identifying all responses that were linked in any of these ways. We telephoned our contact at the highest corporate level that responded to **determine** where the decision-making authority regarding SELECT was held. If we **determined** that corporate headquarters was the responsible level, then we removed the regional **office** or subsidiary from our population and discarded its response as ineligible. If we determined that authority had been delegated to the regional or subsidiary level, we kept the response and conducted follow-up calls to obtain data from those that had not responded. If we were unable to obtain their responses, they remained in the population and were counted as a nonrespondent. Because of these linkages among companies across states, insurer **survey** results are not meaningful at the state level and are provided for the combined population of insurers. However, the results are **always** presented separately for responding Medigap **insurers** and **HMOs** because they face different issues **with** respect to participation in the Medicare **SELECT** program.

From lists provided by the state insurance departments and the GHAA directory of **HMOs**, we initially identified 193 Medigap insurers and 280 **HMOs** in the SELECT states. After removing duplicates and those known to offer SELECT, we mailed the questionnaire to 136 Medigap insurers and 248 **HMOs**. Of these 136 Medigap insurers, 19 were found to be ineligible because a division, subsidiary, or parent company offered SELECT, 18 were ineligible for other reasons (e.g., another unit in the corporate structure makes decisions regarding which Medigap products to offer), and 19 refused to respond, leaving 80 analyzable responses and an overall response rate of 86 percent. Of the 248 **HMOs**, 14 were ineligible because a division, subsidiary, or parent offered SELECT, 41 were ineligible for other reasons (e.g., another unit in the corporate structure is responsible for making the decision), and 76 refused to respond, leaving 117 analyzable responses and an 69 percent response rate.

## 2.3 Beneficiary Claims Analyses

The first stage in the quantitative phase of the evaluation was to **define** the populations of interest and identify the beneficiaries who belonged to each population. Because the marginal cost of including additional observations in secondary claims analysis is small, we decided to conduct the claims analysis on the entire population of interest. There were six major steps in the process of **defining** populations and obtaining their data:

1. **defining** the experimental and comparison groups,
2. ~~defining~~ and obtaining data needed from insurers,
3. matching insurer and HCFA data,
4. **geographic** matching of the experimental and comparison groups,
5. temporal matching of the experimental and comparison groups, and
6. sampling of the comparison groups to match the SELECT enrollment counts.

### 2.3.1 Defining Experimental and Comparison Groups

The evaluation was designed to minimize two potential threats to validity that stem from the way in which Medigap insurance operates: First, Medicare **SELECT** was implemented by the same legislation and regulations that established the 10 standard Medigap benefits packages. Thus, it is necessary to distinguish the impact of Medicare SELECT from the impact of standardization. Second, only slightly more than one-third of Medicare beneficiaries

individually purchase private insurance to **supplement** fee-for-service Medicare (Chulis, et al., 1993). The balance of the population, who **receive** supplemental coverage through **employment-based** groups or Medicaid, **who** have no supplemental coverage, or who belong to Medicare **HMOs**, is not an appropriate comparison for **the** Medicare SELECT population because they are subject to different insurance benefits and cost **incentives**.

Based on our case study interviews, we identified four types of individually purchased Medicare supplemental policies:

1. **SELECT** (defined as post-standardization policies that pay benefits only when the **insurer's** provider network is used),,
2. Post-standardization, non-network policies,
3. Pre-standardization, network: **policies**, and
4. Pre-standardization, non-network policies.

Under the **OBRA** 1990 regulations, insurers were permitted to continue operating **pre-standardization** policies as closed books of business, although they were prohibited from making new sales. Thus, all four types of **policies** existed with **active enrollment** at the time of the evaluation. **Beneficiaries** enrolled in types 3 and 4 were excluded from the analysis to avoid confounding the impact of SELECT with the impact of standardization.

### 2.3.2 Defining and Obtaining Data from Insurers

**Because** we are concerned with private *supplemental* coverage, it was necessary to obtain enrollment data from insurers, but Medicare claims data **were** sufficient for the cost and utilization analysis once beneficiaries were linked **with** their Medigap products. The Medicare claims files **include** all utilization of consequence covered by Medigap policies except for pharmaceuticals. Providing claims data on **pharmaceuticals** would have been an enormous 'burden for insurers, **which** was **unjustified** for the small marginal **improvement** in measuring costs. Thus, we determined that Medicare claims were sufficient to assess cost **and** utilization impacts and that it was not necessary to obtain claims **data** from insurers.

It was, however, necessary to obtain **enrollment** data from insurers. **Except** for the few insurers who enter into “cross-over contracts” with Medicare carriers and fiscal intermediaries for automatic Medigap claims filing, the **Medicare** program captures no information about what kind

of supplement, if any, a beneficiary has. Insurers are the only source of information about which Medicare beneficiaries have which kind of individually purchased Medigap policies.

Insurers are reluctant to identify the persons they insure because they consider the information proprietary and are concerned about legal liability for possible violation of confidentiality. State law varies with respect to confidentiality requirements and, thus, the concerns of the insurers varied. Furthermore, the staff of the individual products divisions of Medigap insurers, who are most often responsible for SELECT, are unfamiliar with federally sponsored program evaluations; thus, there was no precedent for release of this information and little understanding initially about why we needed it.

The Medicare SELECT regulations stated that participating insurers were required to supply “reasonable data” for evaluation. Thus, insurers participating in SELECT understood that they were required to provide something. However, the regulations failed to address two problems. First, except for standard plan A, most Medigap packages offered as SELECT were not offered as non-network plans by the same insurer (only Indiana required insurers to offer every SELECT benefit package as a non-network product also). To include the full range of benefits offered as SELECT in our comparison group also, it was necessary to obtain enrollment lists from insurers that did not participate in SELECT. The number of nonparticipating Medigap insurers identified by state departments of insurance ranged from 19 to 71. It was impossible to obtain cooperation from such a large number of insurers, so we concentrated on obtaining assistance from the nonparticipating BCBS **affiliates** in each state and three of the largest nonparticipating commercial Medigap insurers in the country. Three of the eight BCBS affiliates and two of the three commercial companies declined to participate in the evaluation. However, the other six companies contributed enrollment information that significantly diversified and improved the quality of the comparison group.

Second, the meaning of “reasonable data” as used in the regulations was not specified. Several of the **SELECT** companies initially balked at providing information that identified their beneficiaries. Through a complex negotiation process that extended over several months, insurers agreed to provide only the Medicare Health Insurance Claim (**HIC**) number (i.e., the beneficiary’s Medicare **ID** number) or, in its absence, the Social Security Number (**SSN**), the policy form

number or other number identifying the product the beneficiary had purchased, the effective date of that purchase, and the state in **which** the beneficiary resides. In return, we agreed not to identify the name and address of any ‘beneficiary except for the **small** number who would be sampled for the beneficiary survey.

### 2.3.3 Matching Insurer and HCFA Data

‘The HIC or SSN was necessary to obtain the Medicare claims data for beneficiaries in the SELECT and **comparison** groups. However, insurers are under no obligation to collect those numbers and not all **do**. In November 1994, we sent each insurer participating in the evaluation a request for the **HICs or SSNs** of beneficiaries enrolled in **all** their Medigap products on February 1, 1995. Data files were **received** between mid-February and mid-September 1995. Of the 26 SELECT insurers who received the request, all sent **files** except for Omni Health **Plan** and Foundation Health Plan, both California **HMOs**. Washington, Illinois, and Massachusetts ‘were excluded from the evaluation at this point because they had no approved SELECT plans at the time data were **requested**. The files of **HICs** and **SSNs** received from insurers were then matched to the Medicare **enrollment** files. The percent of valid matches varied by state, depending on whether the insurer **obtained** the number accurately.

The insurers classified their Medigap **products** by the SELECT and post-standardization non-network products, so that we **could** assign beneficiaries to these categories based on which type of policy they owned on February 1, 1995. However,, the assignment was ambiguous in several cases because the product and its policy form number did not change at the time standardization took effect. Because Minnesota and **Wisconsin** were waiver states, insurers there were not required to change their Medigap **products**. Blue Cross of California, Blue Cross Blue Shield of Alabama, and Blue Cross Blue **Shield** of North Dakota were permitted by the state departments of insurance (the Department of Corporations in California) to continue selling their pre-standardization network products as SELECT without change. This is permitted under the SELECT regulations, which allow **states** to approve “innovative benefits” that do not conform to the standard Medigap **plans**. In these cases!, we contacted the state department of insurance or the insurer **to** identify the date on which the product was considered to have become a SELECT product Beneficiaries with effective dates of enrollment on that date or later were **classified** as

SELECT beneficiaries and those with earlier effective dates were excluded from the analysis. We call these beneficiaries “rollovers.” Exhibit 2.2 identifies the number of beneficiaries in network products included in the files provided by SELECT insurers, the number that were classified as SELECT based on the policy form number or effective date of enrollment, and the number and percentage of SELECT beneficiaries for whom **HIC** matches were obtained.

#### **2.3.4 Geographic Matching**

The insurers were asked to provide the **HICs** of beneficiaries residing in the SELECT states. However, the address in the insurer’s file might be the beneficiary’s residence or it might be the residence of a second home or of an adult child who is responsible for the beneficiary’s premium payments. Insurers are inconsistent in the way they record this information. To minimize geographic miscoding, we matched the state supplied by the insurer to the state in the HCFA Enrollment Data Base and discarded any cases that did not match. Next we discarded any cases with zip codes that were not valid for the SELECT states. These checks were made on an insurer- and state-specific basis so that the state indicators and zip codes had to match for the state in which the insurer was doing business. For example, if Blue Cross of California gave us a state or zip code indicating an Arizona residence, the case was discarded even though Arizona is a SELECT state, because Blue Cross of California is not approved to sell SELECT in Arizona.

The **final** geographic match involved restricting the comparison group population to the SELECT market areas. We identified the SELECT market areas as the set of S-digit zip codes found in the file of SELECT beneficiaries after the previously described limitations were imposed. Comparison group members from other zip codes were discarded.

#### **2.3.5 Temporal Matching**

We asked the insurers to provide lists of policyholders as of February 1, 1994, by February **15, 1994**. However, most insurers took longer to supply the data and some files had to be returned for corrections. The last **file** was not received until mid-September, 1994. Some of the files that arrived later in the year included beneficiaries with effective dates of enrollment later than February 1994. Therefore, we standardized the period for which we are making comparisons by discarding all cases with effective dates later than February 1994.

**Exhibit 2.2**

**SELECT Beneficiaries Included in the Cost and Use Analysis, by State**

<b>State</b>	<b>(1) Beneficiaries in Network Products</b>	<b>(2) Beneficiaries Classified as SELECT</b>	<b>(3) SELECT Beneficiaries Matched to HIC No.</b>	<b>(4) Percentage Matched (3/2)</b>
Alabama	209,283	35,479	30,830	86.90%
Arizona	8,480	1,404	1,195	85.11%
California	79,471	43,674	38,765	88.76%
Florida	55,740	13,016	12,434	95.53%
Indiana	910	573	523	91.27%
Kentucky	47,271	14,586	13,414	91.96%
Minnesota	60,362	43,376	25,600	59.02%
Missouri	41,728	5,480	4,666	85.15%
N. Dakota	8,815	142	73	51.41%
Ohio	1,517	593	425	71.67%
Texas	30,019	9,003	8,567	95.16%
Wisconsin	25,398	3,413	2,339	68.53%
<b>Total</b>	<b>568,994</b>	<b>170,739</b>	<b>138,831</b>	<b>81.31%</b>

### 2.3.6 Sampling Comparison Group Members

At this stage, the number of beneficiaries in the comparison group file far exceeded the number in the **SELECT** file. We chose a sample from the comparison group file approximately equal in number to the **SELECT** cases. We drew a stratified random sample that matched the age, sex, and geographic distribution of the **SELECT** population. This was achieved by stratifying by age, sex, and **3-digit** zip code and drawing a sample equal to the **SELECT** count in each stratum. If the **SELECT** count exceeded the number of cases available in the comparison group stratum, then every stratum member was selected.

### 2.4 Beneficiary Survey

The beneficiary survey was conducted in six of the 12 states with **SELECT** enrollment in January 1994. It was necessary to limit the survey sample to beneficiaries for whom we had acquired valid HIC numbers, so that we could identify their names and addresses from Medicare enrollment files. Criteria for choosing states for the survey included number of **SELECT** beneficiaries; geographic variation; participation by **HMOs**, **BCBS** organizations, and commercial insurers; the use of hospital networks only; and the presence of a waiver state. The states chosen were Alabama, **Arizona**, Florida, Missouri, Texas, and Wisconsin. The rationale for choosing states, discussed below, is based on the characteristics of plans and beneficiaries represented in our claims data base, which is described above in section 2.3.

Indiana, North Dakota, and Ohio were excluded from consideration because they had very small **SELECT** enrollment. California and Minnesota were excluded because a very high percentage of doctors and hospitals in the state participated in the **SELECT** networks and one **purpose** of the survey was to assess the impact of provider restrictions on beneficiaries. It would not have been feasible to ask those questions in states where beneficiaries faced few limitations.

Blue Cross Blue Shield of Alabama includes **almost** all Alabama physicians and hospitals in its network. However, the five other **SELECT** insurers in Alabama use limited provider networks. Thus, we included Alabama in the survey sample but excluded beneficiaries enrolled with Blue Cross Blue Shield of Alabama. These five insurers represent a variety of insurer models including hospital-only networks, a plan that enrolls only former **USX employees**, local insurers,

and a national insurer participating; **in** several SELECT states. One of the local insurance companies was established by a local teaching hospital. Alabama also gives us a southern **state**.

**Arizona** was included **because** it is a **western** state: with a relatively small **SELECT** enrollment (although considerably larger than Indiana and Ohio). Its SELECT insurers include a BCBS organization, an HMO, and a **commercial insurance** company. Florida has one of the larger SELECT enrollments outside of the rollover states and has both hospital-only and **hospital-physician network SELECT** plans. **It** also **had** one of the larger enrollments among beneficiaries less than age 65. Missouri SELECT plans are **organized** entirely **with** hospital-only networks. **Like** Florida, it has a comparatively high, **although** still small, number of SELECT enrollees under age **65**. Texas is a **state** in which **BCBS** does not participate in **SELECT**. It is a hospital-only state with SELECT participation **by** commercial insurance companies. Wisconsin is a waiver state with the largest number of insurers **participating** in SELECT. All nine are **HMOs**.

The beneficiaries in the claims data **files** from the six chosen states constituted the sampling frame for the survey. The sample was stratified. **explicitly** by state, plan type (SELECT and non-network), age, and sex. The sample within each explicit strata was sorted by insurer and **5-digit** zip code and a systematic sample was drawn to assure a proportional take by insurer and zip code within each explicit stratum. **Sample** sizes **were** allocated among the states and **experimental/comparison** groups to **maximize** the efficiency of the estimates under the assumptions that (1) state-specific estimates **were** the primary objective but pooled estimates might be necessary for rare **phenomena** and (2) samples of SELECT beneficiaries should be larger than samples of comparison group beneficiaries (**compared** to equal allocation) to provide improved precision for descriptive estimates of the **SELECT** population without degrading the power to detect differences between the two groups.

Beneficiaries were sampled using only the HIC, **age**, sex, insurer, and zip code data obtained from the insurer and the Medicare enrollment **file**. The **HIC** numbers of the sampled beneficiaries were then matched to their names and addresses in the Medicare Enrollment Data Base, the only file we used that contains names and addresses. Thus, we obtained names and addresses only for the beneficiaries who were **sampled for** the survey.

### 2.4.1 Sample Sizes and Weighting for the Beneficiary Survey

The sampling frames and sample sizes for the SELECT and non-network enrollees in each state are given in Exhibit 2.3. The statistical criterion for estimating the sample size was based on the ability to detect a difference of approximately 7.5 percent for a percentage around 50 percent for a one-sided test of significance level of 0.05 and statistical power of 0.80. In addition, we assumed a response rate of 80 percent for both populations. The sample sizes given in Exhibit 2.3 show the sample allocation for the 6 states and the expected detectable difference.

The sampling weight for each beneficiary is the inverse of the selection probability, and the selection probability for this sampling design is the ratio of the sample size to the number of beneficiaries in each sampling stratum. The sum of the sampling weights for each population is the total count for the population.

### 2.4.2 Adjustment for Nonresponse

All sample surveys are subject to nonresponse (i.e., persons who refuse, are unable to respond, or cannot be contacted during the survey period). For the beneficiary survey, two levels of nonresponse exist for the SELECT beneficiaries: (1) **nonresponse** to the telephone interview; and (2) response to the telephone interview but the respondent did not know that he/she was in SELECT (i.e., some of the SELECT beneficiaries did not know that they were in SELECT when asked during the telephone interview). These cases were considered as non-respondents for the portion of the analyses that described their perceptions of SELECT products. For the non-network beneficiaries, only nonresponse to the telephone interview existed. A summary of the response rates is shown in Exhibit 2.4.

To reduce the potential impact of nonresponse, the standard practice is to adjust the sampling weights of the respondents to compensate for the non-respondents. The potential for bias can be reduced if respondents and non-respondents with similar propensity to respond can be grouped into classes. The weights of the respondents are inflated to compensate for the **non-**respondents in that class by multiplying the respondents' sampling weight by the inverse of the propensity to respond in that class. For beneficiaries under 65, we computed a simple ratio-type adjustment to account for nonresponse. For beneficiaries 65 or older, we used a more sophisticated procedure based on response propensity modeling. Details are provided in Appendix A.

**Exhibit 2.3**  
**Sampling Frames and Sample Sizes for SELECT<sup>1</sup> and Non-network Beneficiaries**

		Sampling Frame		Sample Allocation <sup>1</sup>		Expected Detectable Differences <sup>2</sup>
		SELECT Beneficiaries	Non-network Beneficiaries	SELECT Beneficiaries	Non-network Beneficiaries	
Alabama	65+	8,179	2,157	963	625	7.1%
Arizona	65+	1,144	1,144	750	625	7.5%
Florida	65+	12,250	12,113	1,442	660	6.5%
	<65	190	65	190	65	19.9%
Missouri	65+	4,597	3,778	750	625	7.5%
	<65	75	210	75	150	19.6%
Texas	65+	8,329	5,654	980	625	7.1%
Wisconsin	65+	2,275	1,694	750	625	7.5%
Total	All	37,039	26,815	5,900	4,000	3.5%
	65+	36,774	26,540	5,635	3,785	3.6%
	<65	265	275	265	215	

<sup>1</sup> Assumed an 80 percent response rate.

<sup>2</sup> Expected detectable difference between percentage estimates for SELECT and non-network enrollees around 0.50 for a one-sided test of significance at  $\alpha = 0.05$  and statistical power of 80 percent.

**Exhibit 2.4**  
**Summary of Response Rates from SELECT and Non-network Beneficiaries**

		SELECT Beneficiaries					Non-network Enrollees		
		Sample	Telephone Response <sup>1</sup>	SELECT Response <sup>2</sup>			Sample	Telephone Response <sup>1</sup>	
		Count	Count	%	Count	%	Count	Count	%
Alabama	65+	963	708	73.5	587	61.0	625	489	78.2
Arizona	65+	750	501	66.8	422	56.3	625	431	69.0
Florida	65+	1,442	985	68.3	831	57.6	660	442	67.0
	<65	190	128	67.4	96	50.5	65	45	69.2
Missouri	65+	750	585	78.0	447	59.6	625	411	65.7
	<65	75	56	74.7	45	60.0	150	120	80.0
Texas	65+	980	679	69.3	517	52.8	625	462	73.9
Wisconsin	65+	750	589	78.6	518	69.1	625	479	76.7
Total	All	5,900	4,231	72.0	3,463	58.7	4,000	2,879	72.0
	65+	5,635	4,047	71.7	3,322	59.0	3,785	2,714	71.7
	<65	265	184	76.7	141	53.2	215	165	76.7

1 Telephone Response: response to telephone interview

2 SELECT Response: response to telephone interview and knew that he/she was in SELECT.

### 3.0 Summary of Case Study Results and 1995 Premium Comparisons

A detailed description of the case studies of all SELECT states is available in the Case Study Report (Lubalin et al., 1994). A summary is included in the Final Report because the case study results provide an important context for understanding the survey and claims analyses. The Case Study Report also included a comparison of SELECT premiums to the premiums of standard unrestricted Medigap products offered by the same insurer. Following the recap of case study results, we provide an updated and expanded comparison of premiums.

#### 3.1 Participation in SELECT

Exhibit 3.1 presents information on SELECT activity in each of the SELECT states through October 1995. Several important characteristics of SELECT implementation are worth noting:

- 1. Organizations Offering SELECT.** Early in the **3-year** demonstration period, the most active company in the SELECT market was **Humana**, which **sells** SELECT in seven states. The second most active company was Olympic Health Management Systems, which participated in four states as a network and **claims management** contractor for **Health Insurance Corporation of Alabama (HICA)**, **Sierra Life** in Texas, and **Bankers Life and Casualty** in Missouri, Ohio, and Texas. Except for Olympic's three partners, no commercial insurance companies participated in SELECT. Since the Case Study Report was submitted in February 1994, Olympic has significantly expanded the number of insurers and states in which it participates in SELECT. Olympic now works with Pioneer Life Insurance Company in Illinois and Indiana and with Seaboard Life Insurance Company in Ohio. Olympic and Bankers **have** expanded their partnership to Arizona, Florida, Illinois, Indiana, Kentucky, **and** Wisconsin, so that they now operate in nine **of the 15** states. In addition to the two states in which it works with Olympic, Pioneer **also** sells SELECT products in Florida, Ohio, and Texas for a total of five states.

National Foundation Life Insurance Company, National Financial Insurance Company, American **Insurance** Company of Texas, which are all companies within the same corporate enterprise, are approved to **sell** SELECT products **in** seven states. In each case, all three companies are approved, except in Florida and Ohio where only two are approved. Other commercial insurance companies that have been **approved** for SELECT since **the** Case Study Report was submitted include Celtic Life Insurance

Exhibit 3.1

Overview of Implementation Status in States Continuously Approved as Medicare SELECT States (As of November 1, 1995)

State	Medicare Beneficiaries**	SELECT Plans Approved	SELECT Enrollment	Medicare SELECT Plan(s) Offered by Each Insurer*											Standard Plan(s) Offered by Each SELECT Insurer*											Notes
				A	B	C	D	E	F	G	H	I	J	Other	A	B	C	D	E	F	G	H	I	J	Other	
Alabama	641,290	American Insurance Company of Texas	0	X	X	X									X	X	X									5
		Blue Cross Blue Shield of Alabama	171,609	X	X	X																				1
		Complete Health Senior Partners	5,401	X	X	X																				2
		Health Advantage Plans Inc.	3,000	X	X	X																				2
		Health Insurance Corp. of Alabama	2,379	X	X	X																				3,5
		Health Partners of Alabama Inc.	4,400	X	X	X																				2
		Humana Insurance Company	6,854	X	X	X																				5
Arizona	597,290	National Financial Insurance Company	0	X	X	X																				5
		National Foundation Life Insurance Co.	0	X	X	X																				5
		American Insurance Company of Texas	0	X	X	X																				5
		Bankers Life & Casualty Company	0	X	X	X																				3,5
		Blue Cross Blue Shield of Arizona	639	X	X	X																				2
		First Health of Arizona	583	X	X	X																				5
		Humana Insurance Company	509	X	X	X																				5
California	3,632,937	National Financial Insurance Company	0	X	X	X																				5
		National Foundation Life Insurance Co.	140	X	X	X																				5
		Samaritan Health Plans, A Division of Health Partners of AZ	149	X	X	X																				2
		Blue Cross of California	86,152	X	X	X																				2
		Foundation Health, A California Health Plan	339	X	X	X																				2
		National Health Plans Inc.	1,299	X	X	X																				2
		Omni Health Plan	1,026	X	X	X																				2
Florida	2,510,137	American Insurance Company of Texas	0	X	X	X																				5
		Bankers Life & Casualty Company	184	X	X	X																				3,5
		Blue Cross and Blue Shield of Florida, Inc.	11,861	X	X	X																				5
		Celtic Life Insurance Company	0	X	X	X																				5
		First National Life Insurance Company	1,014	X	X	X																				5
		Humana Health Ins. Co. of Florida, Inc.	2,316	X	X	X																				5
		Mutual Protective Medico Life Ins. Co.	1,118	X	X	X																				5
		National Financial Insurance Company	0	X	X	X																				5
		Pioneer Life Insurance Co. of Illinois	4,276	X	X	X																				5
		Provident Life and Health Insurance Co. of Illinois	5,886	X	X	X																				5

Exhibit 3.1

Overview of Implementation Status in States Continuously Approved as Medicare SELECT States (As of November 1, 1995)

State	Total Medicare Beneficiaries**	SELECT Plans Approved	SELECT Enrollment	Medicare SELECT Plan(s) Offered by Each Insurer *												Standard Plan(s) Offered by Each SELECT Insurer *												Notes
				A	B	C	D	E	F	G	H	I	J	Other	A	B	C	D	E	F	G	H	I	J	Other			
Illinois	1,617,462	Bankers Life 8 Casualty Company	767	X	X	X											X	X	X	X	X	X	X	X	X	3,5		
		Health Care Service Corporation	NA																								5	
		Humana Insurance Company	18	X	X	X												X	X	X							5	
		Mutual Protective Medico Life Ins. Co.	0	X	X	X												X	X	X							3,5	
		Pioneer Life insurance Co. of Illinois	7	X	X	X												X	X	X							5	
Indiana	822,963	Provident Life and Health Insurance Co.	0	X	X												X	X	X							5		
		The Pyramid Life Insurance Company	1														X	X	X							5		
		United American Insurance Company	NA																								5	
		Acordia Senior Benefits (BCBSIN)	523	X													X	X	X								3,5	
		Bankers Life & Casualty Company	7	X	X												X	X	X								5	
Kentucky	586,165	Humana Insurance Company	1,388	X	X	X											X	X	X							3,5		
		Pioneer Life Insurance Co. of Illinois	241	X	X	X											X	X	X							5		
		The Pyramid Life Insurance Company	253	X													X	X	X							3,5		
		American insurance Company of Texas	0	X	X												X	X	X							5		
		Bankers Life & Casualty Company	0	X	X	X											X	X	X							3,5		
Massachusetts (waiver state)	932,650	Humana Health Plan	16,493	X	X	X										X	X	X								2,5		
		Mutual Protective Ins. Co.	0	X	X	X										X	X	X								5		
		National Financial Insurance Company	5	X	X	X											X	X	X							5		
		National Foundation Life Insurance Co.	0	X	X	X											X	X	X							5		
		The Pyramid Life Insurance Company	1													X	X	X	X							5		
Minnesota (waiver state)	630,666	Southeastern Group Inc. (BCBSKY)	12,319	X	X	X										X	X	X								2,5		
		None	0																									
		Blue Cross and Blue Shield of Minnesota	80,991																								4	
		MedCenters Inc.	803																								1,2,4	
		Medica Health Plans (Allina Health System)	900																								2,4	
Missouri	631,927	American Insurance Company of Texas	0	X	X												X	X	X							5		
		Bankers Life & Casualty Company	4,730	X	X	X										X	X	X								3,5		
		Blue Cross Blue Shield of Kansas City	1,126	X	X	X										X	X	X								5		
		Humana Insurance Company	6,067	X	X	X										X	X	X								5		
		Mutual Protective Ins. Co.	0	X	X	X										X	X	X								5		
North Dakota	103,169	National Financial Insurance Company	0	X	X											X	X	X							5			
		National Foundation Life Insurance Co.	126	X	X	X											X	X	X							5		
		Blue Cross Blue Shield of North Dakota	9,300												X	X	X									5		

Exhibit 3.1

Overview of Implementation Status in States Continuously Approved as Medicare SELECT States (As of November 1, 1995)

State	Total Medicare beneficiaries**	SELECT Plans Approved	SELECT Enrollment	Medicare SELECT Plan(s) Offered by Each Insurer *										Standard Plan(s) Offered by Each SELECT Insurer *												Note:
				A	B	C	D	E	F	G	H	I	J	Other	A	B	C	D	E	F	G	H	I	J	Other	
Ohio	1,665,799	American Insurance Company of Texas	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Bankers Life & Casualty Company	3,363	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3,5
		Humana Insurance Company	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Mutual Protective Ins. Co.	18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		National Foundation Life Insurance Co.	69	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Pioneer Life Insurance Co. of Illinois	192	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
Texas	2,076,115	The Pyramid Life Insurance Company	6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Seaboard Life Insurance Company (USA)	212	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3,5
		United Healthcare of Ohio, Inc.	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
		American Insurance Company of Texas	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Bankers Life & Casualty Company	1,210	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3,5
		Continental Life Ins. Co. of Brentwood, TN	218	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
Washington	688,573	Humana Insurance Company	4,213	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Mutual Protective Insurance Company	6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		National Financial Insurance Company	67	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		National Foundation Life Insurance Co.	4,062	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		New Era Life Insurance Company	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Pioneer Life Insurance Co. of Illinois	326	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
Wisconsin	760,880	Provident Life and Health Insurance Co.	21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		The Pyramid Life Insurance Company	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Sierra Health & Life Insurance Company	14,116	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5
		Sierra Physicians Service	1,803	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3,5
		Pierce County Medical	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
		Bankers Life & Casualty Company	780	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3,4,5
Wisconsin (valley state)	760,880	Family Health Plan Cooperative	3,716	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
		Greater La Crosse Health Plan 65 Plus	558	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
		Group Health Coop. of South Central WI	429	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
		Unity Health Plans (Community Network)	148	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2,4
		North Central Health Protection Plan 65 Plus	813	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
		Physicians Plus Insurance Corporation	812	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
Wisconsin (valley state)	760,880	Security Health Plan of Wisconsin Inc.	3,201	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2,4
		Unity Health Plans (University Plus Network)	163	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
		Valley Health Plan	441	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
		Wisconsin Physicians Service Ins. Corp.	242	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2,4
Total	18,198,065	SELECT Total	489,405																							

### Exhibit 3.1

Overview of Implementation Status in States Continuously Approved as Medicare SELECT States (As of November 1, 1995)

**NOTES:** \* Plans A through 4 are standard plans developed by NAIC.

. \* As of 9/30/95

1-Almost all enrollees were rolled over from pre-OBRA products.

2-Plan is a health maintenance organization (HMO).

3-Organization affiliated with Olympic Health Management Systems, Inc.

4-State has a waiver from standardization: so plans do not conform to A-J.

5-SELECT network does not include physicians,

Company (1 state), Providian Life and Health Insurance **Company (3)**, Union Fidelity Life Insurance Company **(1)**, Mutual Protective Medico Life Insurance Company **(6)**, The Pyramid Life Insurance Company **(5)**, United American **Insurance** Company **(1)**, Continental Life **Insurance** Company of Tennessee **(1)**, and New Era Life Insurance Company (1).

In addition to the eight BCBS affiliates that were approved to sell SELECT when the Case Study Report was submitted, Blue Cross Blue Shield of Indiana, doing business as Accordia Senior Benefits, is now approved in Indiana. Health Care Service Corporation is approved in Illinois. Two additional **HMOs** are also offering SELECT products, **Medica** Health Plans in Minnesota and United Healthcare of Ohio, raising the number of **HMOs** to **25, 10** in Wisconsin.

Since the Case Study Report was submitted, there has been major growth in SELECT participation among commercial insurance companies and hardly any among **HMOs** and BCBS affiliates. Olympic and Bankers, important participants early in the program, have become significantly more important.

2. **SELECT Enrollment.** Approximately 489,000 Medicare beneficiaries are enrolled in SELECT plans. Initially, about three-fourths of SELECT enrollment was attributable to three large Blue Cross Blue Shield affiliates (in Alabama, California, and Minnesota) that automatically transferred enrollees in their **pre-OBRA** network products to their SELECT products without revising the benefits. With time, these enrollees represent a smaller proportion of SELECT enrollment than they did at the start, because these plans continue to enroll new beneficiaries, older beneficiaries die, and new SELECT products from other insurers become available. Blue Cross of California, which accounted for a significant percentage of this rollover population initially, closed its non-standard SELECT plan in July 1995 and offered its beneficiaries the opportunity to enroll in new plans A, F, or J. Judging by its current reported enrollment of 86,152, many beneficiaries made the switch. Thus, it is no longer appropriate to consider these beneficiaries rollovers.
3. **SELECT Plans.** SELECT plans are now approved for sale in all demonstration states except Massachusetts. In states where the **NAIC** models are applicable (all but the Medigap waiver states of Minnesota and Wisconsin), plans A, B, C are most frequently offered as SELECT. Plan F is also offered frequently and plan H is the most common of the three plans that offer pharmacy benefits. Plans D, E, G, I and J are occasionally or rarely offered as SELECT. Every one of the 10 standard benefits plans is now offered as SELECT in at least one state.

## 3.2 Case Study Conclusions

### 3.2.1 The Medicare SELECT Model: Intended vs. Actual Implementation

We believe that the legislative intent of permitting Medicare supplemental policies with restricted networks to operate in 15 states (Section 4358 of **OBRA** 1990) was to encourage the participation of full-service, coordinated care networks in the Medicare supplement market. **Certainly**, the Request for Proposals (**RFP**) for this evaluation contract contained unambiguous statements regarding the nature of the networks expected to participate in Medicare SELECT.

To wit (emphasis added):

“Section 4358 permits insurers to market, as an approved Medigap policy, a product ***with a coordinated care component....(which)*** would generally pay full Medigap benefits only when the service was provided by the plan’s ***managed care network. ....*** Beneficiaries who purchase Medicare SELECT policies should pay a lower premium for the supplemental insurance but to receive full policy benefits, must obtain care from a specified ***network of physicians and facilities. These networks are likely to be preferred provider organizations (PPOs)*** but may include health maintenance organizations (**HMOs**). Such networks are designed to **reduce** health **care costs** by ***increased use of utilization review and management*** controls, which may include selecting participating providers on the basis of their conservative treatment practices. . . . A Medicare SELECT policy holder will not be required to use the network providers for services, and Medicare benefits will not be affected by choice of provider. However, ***with limited exceptions, if*** services are obtained from a provider who is not a member of the network, supplemental benefit payments will be reduced or not paid.”

Based on our reading of the legislation, the NAIC model legislation, **HCFA's** regulations, and the **RFP** for this evaluation, we anticipated finding networks that were:

- restricted to a subset of providers in the service area, most likely on the basis of price and **efficiency**;
- engaged in coordinated or managed care efforts, possibly using primary care physicians as “gatekeepers” to provide this coordination; and
- composed of physicians, hospitals, and other providers needed to supply the full set of services included in the Medicare **SELECT** benefit package(s) offered for sale; and
- generally, **PPOs**, but occasionally **HMOs**.

What we found varied significantly from **this** implicit model.

- SELECT networks are not always restricted to a subset of providers. Two of the eight BCBS organizations offering SELECT have defined their SELECT provider network as their entire network of participating physicians and hospitals in the state. Thus, in two of the 12 states that have approved SELECT plans, **90–95** percent of **all** hospitals and physicians are members of a single SELECT network. The concept of a **SELECT** network limited to the more efficient providers cannot exist in these cases. Two other BCBS organizations report that their networks include about 75 percent of doctors and hospitals in the state. They contend, and we agree, that excluding 25 percent of the providers at the extreme ends of the distribution of efficiency could result in significant savings. However, we did not investigate the basis for excluding providers in detail.
- Even when they are operated by managed care companies, there is little coordination or management of care by organizations offering Medicare SELECT. Active coordination of care was unusual, except among **HMOs**. There is little incentive to undertake the expense of utilization review, prior authorization, or other case management activities typically applied in managed care settings because:
  - (1) The Medicare program has already made a determination of medical necessity and appropriateness when it decided to pay the claim. Even if a separate determination were permitted (which it is not), the cost savings would be insignificant. If it resulted in many conflicts, the cost of resolving the conflict in terms of added administration and strained subscriber relations would be large compared to the likely savings from reduced utilization.
  - (2) The insurer cannot reduce costs by steering subscribers to physicians who offer a discount, due to the absence of a Part B safe harbor.
  - (3) Although insurers might benefit by steering patients to more efficient providers, most believe that the costs of doing so are high in comparison to the benefits likely to be achieved. **HMOs** that reimburse their physicians by salary or **capitation** have more of an incentive to manage patients, but even their incentive is limited because their risk is limited to amounts not paid by Medicare.

Given that insurers are at risk only for the portion of the bill that Medicare does not pay,, most believed that significant cost savings, and thus premium savings for the subscriber, can be best achieved with provider price discounts. They believed that the potential savings that might accrue from **incentives** to alter provider and patient behavior are too limited in **this** product to justify the costs of adjudicating disputes. Thus, they see the absence of a Part B safe harbor as a significant impediment to the effectiveness of SELECT because discounts are not available from physicians.

- (4) The belief that premium savings from active case management will be insignificant also explains why **no** SELECT insurers have approached HCFA for a medical necessity **determination** contract. Congress gave HCFA **discretion** to delegate medical necessity **determinations** to SELECT insurers who were concerned that they could not effectively **manage** care without it.. **Despite** this, no SELECT insurer has approached HCFA about a contract. Nevertheless, because most participating insurers expect their premium savings to come from discounts rather than from case management,, control over medical **necessity** determinations offers them little.

- These plans pay for the services of any physician but pay for hospital services only when performed in network hospitals. This approach creates a **de facto** network of physicians who have admitting privileges at network hospitals but this group of **physicians** is not selected by the insurer and cannot be called a preferred provider network in any meaningful sense. Furthermore, it exists only with respect to physician services **related** to inpatient stays.

None of the insurers **using hospital-only** networks actively manages the care of Medicare beneficiaries. In some cases, these hospital networks were initially **organized** by firms that manage or consult with hospitals to increase Medicare market share at network hospitals rather than to **minimize** utilization. Among **the** reasons insurers give for developing hospital-only networks is that there is little 'beneficiary loyalty to hospitals but substantial loyalty to **physicians**; thus, it is **easier** to sell plans that only restrict **access** to **hospitals**. Moreover, **these** networks are relatively inexpensive and **easy to** develop because there are so few hospitals involved compared to **the** number of physicians that would have to be involved in a physician network. Finally, hospitals provide the biggest return for the investment through waiver of the Part: A deductible by hospitals.. For these networks, Medicare SELECT should reduce the price

of coverage by the amount of the Part A deductible (or by some portion of it, depending on the terms of the reimbursement contract between the hospitals and the insurer), but there is no reason why it should affect utilization rates.

- A few Medicare SELECT insurers offer “physician-only” networks. Two are Blue Cross Blue Shield plans. One has no hospital network because none of the hospitals in the state would waive the Part A deductible. Thus, it is not by choice that it only includes physicians. The other has no restriction on hospitals because 100 percent of the state’s hospitals are participating providers. One other is an HMO that consists primarily of a hospital-employed physician group. These last two may have contracts for SELECT only with physicians but are assured, regardless, that hospital **utilization** will be in their affiliated hospitals.
- The role of **HMOs** in SELECT is paradoxical; more significant than we expected in some ways and less significant in others. About one-fourth of all SELECT insurers are **HMOs**. Through the start of 1994, they accounted for over one-half. Although this percentage is higher than we expected, it varies considerably from state to state. In fact the percentage is significant among all 12 active SELECT states combined because in Wisconsin, which has by far the largest number of SELECT insurers with 10, all of them are **HMOs**. In five of the states with approved plans, there are no **HMOs** among the **SELECT** insurers. **HMOs** are more likely than insurance companies and service corporations to manage the care of **SELECT** beneficiaries but they are also more likely to be participating in **SELECT** only as a convenience to their employee group members who wish to continue using the HMO after retirement.
- For multiproduct managed care **firms** that have subsidiaries licensed as insurance companies and **HMOs**, the decision about whether to offer SELECT through the HMO or the insurance company depends in part on factors unrelated to the product. For example, **Humana** offers **SELECT** through its HMO subsidiary in Kentucky instead of the insurance company subsidiary it uses in other states because domestic companies are not subject to some premium taxes in Kentucky and the HMO is domiciled in Kentucky but the insurance company is not. The other approved SELECT insurer in Kentucky is also licensed as an HMO but it is a wholly owned subsidiary of Blue Cross Blue Shield of Kentucky. As with **Humana**, the fact that an HMO is participating in **SELECT** is a function of an internal business decision made by a multiproduct insurance **firm** and says nothing about the extent to which **SELECT** is or is not attractive for **HMOs**.

### 3.2.2 Interest in Medicare SELECT Among Departments of Insurance and Insurers

Although state insurance regulators, **through** the **NAIC**, played a significant role in the development of both the standard and the SELECT plans, SELECT was a minor issue compared to the much more significant issue of standardizing the army of **pre-OBRA** benefit plans. For most of the insurance departments we **visited**, **Medicare** supplements, in any **form**, are a relatively minor issue compared to more pressing concerns like state health care reform initiatives, insurance company failures, and natural **disasters**. For example, in Florida, the entire Department of Insurance was consumed with property and casualty claims from Hurricane Andrew at the time SELECT implementation began; in Texas, the life and health staff in the TDI has to regulate 1,100 life insurers and (at the time of our interview) just 3 Medicare SELECT insurers. Consequently, with some significant exceptions, regulators do not pay close attention to a complex service delivery **product** like SELECT; instead, they tend to focus much more on their principal business of **reviewing** and approving insurance rates and monitoring the **financial** solvency of insurers. To the extent that they had resources available to deal with issues of Medicare supplement insurance, they went first to recertify standard supplemental plans, since, again with exceptions, the vast majority of Medicare **beneficiaries** are covered by these and not. SELECT plans.

Most insurers also have little interest in **SELECT**. We identified approximately 400 **HMOs** and Medicare supplemental insurance companies and health care service corporations in the 13 Medicare SELECT states that **had** been **designated** at the time of the case study site visits. Only **40** were offering **SELECT** and only seven applications were pending from companies that did not already offer SELECT in another state. At the time of the case studies, Florida had the most “pending” activity and Olympic was holding discussions with several commercial insurers about applications in several states. **As** indicated by the updated chart of SELECT activity in Exhibit 3.1, the **number** of participating insurers has increased, but it is still a minority of Medigap insurers and **HMOs** in the demonstration states.,

Nevertheless, there is a small group of Medicare supplement insurers that is vitally interested in SELECT because they consider themselves to be managed care **firms** and want to offer a **full** line of managed care products. We found that:

- Many of the organizations that submitted applications for SELECT plans are involved because they had pre-OBRA network products and wanted to continue offering them. Insurers in waiver states and in states that are **flexible with** respect to standardization have had the most seamless conversion to SELECT, because they have been able to transfer their **pre-OBRA** subscribers into their SELECT products. In waiver states, there was no difference between the pre- and post-OBRA products. In two states, Alabama and California, regulatory agencies either used the innovative benefits provision to permit **pre-OBRA** products to continue essentially unchanged or did not require standardization. Except for those who were able to continue offering their pre-OBRA plans essentially unchanged, many insurers expressed the feeling that the managed **care** Medicare supplement products they can offer now are less valuable to consumers than those they offered in the past because the pre-OBRA products offered better benefits than the standard plans. In addition, some organizations that had pre-OBRA networks have been too preoccupied with larger issues (e.g., state health reform initiatives) to give serious consideration to Medicare SELECT when Medicare supplements as a whole account for a very small proportion of their revenue and profit.
- Some organizations applied for SELECT to avoid loss of market-share to other organizations (most often **Humana**) that were pursuing the SELECT market aggressively.
- Several insurance companies and managed care firms that offer Medicare supplements in many states found the restriction to 15 states to be a significant impediment to **SELECT** because the cost of developing SELECT products could not be spread over a wide enough market. Similarly, they found the 3-year sunset provision a significant disincentive because it limits the opportunity to recover their developmental costs.
- Five of the six largest Medicare supplement insurance companies in the country (those that wrote more than \$100 million in premiums in 1991) did not offer SELECT plans at the time of the case study (Pioneer and United American have since been approved to offer it). These large Medicare supplement insurers, like **Prudential/AARP** and United American, are generally firms that were initially indemnity insurance companies and came to offer managed care products later. They sell in virtually every state and

therefore had to refile all their Medicare supplement plans in all states to meet the OBRA 1990 standardization requirements,. This effort consumed resources that might otherwise have gone into developing SELECT plans. The only one of the top six **Medicare** supplement insurers that sold SELECT plans at the time of the case study, Bankers Life and Casualty serves as the insurance underwriter and contracts with Olympic Health Management Systems for development and operation of the network and claims processing. Moreover, some of the **SELECT** states have much more complex and time-consuming application processes than others. Insurers who feel they have difficulty getting any **filing** approved have been reluctant to undertake SELECT filings, with their additional requirements for plans of operation and provider network standards.

- BCBS organizations that offer SELECT typically say they do so because they see it as a service to the community and part of their traditional mission is community service. Some also see it as a way to educate consumers about risk: without making them physically surrender their Medicare card and commit to full risk (i.e., they see SELECT as a transition product). **On** the other hand, about half of the BCBS **affiliates** in the SELECT states do not offer SELECT. **These** organizations, which are among the largest Medicare supplement insurers in their respective states, also told us that they had few resources left for SELECT. after having to recertify their **standard** Medicare supplements. They believe that developing plans of operations and networks is too troublesome and expensive for a product in a line of business —**Medigap**— that produces very little profit.
- **HMOs** are reluctant to offer **SELECT** because the concept of providing supplemental **insurance** is not consistent with the traditional HMO model that stresses prepayment for comprehensive services. **HMOs** have to operate more like a **PPO** to offer **SELECT** and most will not do it because it violates their mission and **traditional** way of doing business, which is grounded in providing comprehensive care coupled with effective utilization control and quality assurance strategies. In Florida, it may be illegal for **HMOs** to provide “supplemental” products because they are required to offer **comprehensive** service packages. Consequently, there are no **HMOs** offering SELECT **in** Florida.

Most of the **HMOs** participating in SELECT are doing so as a service to corporate group clients so that employees can continue to use the HMO when they become eligible for Medicare. Although HMO participation is higher than we **expected**, we found considerable dissatisfaction among participating **HMOs** with the existing array of **SELECT** plans (even plan J,

the most comprehensive). They frequently cited plans to pursue full Medicare risk contracting, because they believe **full** risk arrangements are more competitive than SELECT. Risk contracting has become more acceptable because **HMOs** now have years of experience with **TEFRA** risk products and beneficiaries reaching age 65 have years of experience with **HMOs** through employee health benefits. **If** this growth in risk contracting materializes, these **HMOs** would either drop SELECT or keep it as a niche or transition product for persons who remain wary of risk products in less sophisticated risk product markets.

- Two **firms**, **Humana** and Olympic Health Management Systems, are aggressively participating in **SELECT**. Both identify themselves as firms devoted strictly to managed care products and it is this fundamental commitment to managed care that has led them to SELECT. Because they are devoted exclusively to restricted network products, **SELECT** and Medicare **HMOs** provide their only opportunities to remain in the Medicare supplemental market, which is a significant portion of their business.

Historically, both had strong ties to the hospital industry and saw the joint advantage of (1) lower price to the consumer (through hospitals waiving the Part A deductible or putting it at risk if the plan does not meet required loss ratios) and (2) increased Medicare market share for their network hospitals as the principal benefits of Medicare supplements that used restricted hospital networks. Both offer SELECT products with networks that include only hospitals because the costs of establishing physician networks are very high compared to the potential reduction in premium that can be achieved **from** the use of more efficient physicians, and there is no safe harbor for Part B **discounts**.<sup>3</sup> Consequently, even these **firms** are not likely to implement **SELECT** physician networks unless **SELECT** is afforded a Part B safe harbor. Both **firms** indicated that they prefer to sell Medicare risk products if the **AAPCC** is adequate, rather than SELECT, although Olympic has no risk contract arrangements yet.

Based on these **findings**, we concluded that most service corporations, commercial insurers, and **HMOs** are not particularly interested in SELECT. The greatest interest was shown

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<sup>3</sup> Prior to **OBRA '90**, **Humana** operated networks in several states **that** included physician as well as hospital networks but stopped selling **them** because **they** were not in **SELECT** states. Moreover, **they** prefer to pursue their broader managed **care** mission through risk contracting **where** reimbursement rates make such arrangements financially attractive. Since **they** no longer have strong incentives to fill hospital beds, **Humana** is interested in developing more full-service networks but only if they can do so profitably and **with** assurance that physician discounts for Medicare supplements would not violate Federal anti-kickback regulations.

by firms that were active in the Medicare PPO market prior to OBRA 1990 but not all of these firms have applied to offer SELECT because of competing priorities. Nevertheless, a small segment of the insurance industry, which is strongly committed to managed care as its primary line of business, is vitally interested in SELECT and would probably cease to offer Medicare supplemental insurance, except through TEFRA risk contracts, if SELECT or some type of preferred provider plans were not permitted.. The absence of a Part 13 safe harbor is seen by these active SELECT participants as a significant barrier that is limiting them to networks that exclude physicians. They see the 15-state and 3-year limitations as significant impediments to the expansion of Medicare PPOs. Chapter 4 elaborates on these conclusions regarding insurers with results from the insurer survey.

### 3.2.3 Impact of OBRA 1990 Provisions on SELECT Implementation

Based on our site visits, it is clear that some aspects of the Medicare SELECT Amendments in OBRA 1990 and the Federal regulations associated with them discouraged insurer participation, either directly or as a result of the regulatory interpretations made by state departments of insurance. We identified five provisions that had this effect: (a) the requirement for non-network conversion products from SELECT insurers, (b) innovative benefits, (c) the sunset provision, (d) the restriction to 15 states, and (e) the Inspector General's ruling on a Part B safe harbor.

#### 3.2.3.1 Conversion Products

The most notable area of confusion and differing interpretation concerned *what non-restricted conversion products, if any, must be offered to Medicare SELECT subscribers*. Differing interpretations by state departments of insurance have made it more or less attractive for certain types of organizations to establish SELECT plans in different states. There are three provisions of section 1882 of the Social Security Act, as amended by OBRA 1990, on which interpretations hinge:

- (1) Anyone who sells a medicare supplement policy to an individual will make available for sale to the individual a medicare supplemental policy with only the core group of basic benefits, i.e. plan A.. (Social Security Act section '1882 (o)(2) as amended by OBRA 1990 section 43.5 1)

- (2) The issuer of the policy provides to each enrollee at the time of enrollment an explanation of the availability of a policy through the issuer that meets the NAIC standards without reference to this subsection (Social Security Act section 1882 (t)(l)(E)(i), added by **OBRA** 1990 section 4358 which deals with Medicare **SELECT** policies.)
- (3) The issuer of the policy makes available to individuals, in addition to the policy described in this subsection, any policy (otherwise offered by the issuer to individuals in the State) that meets the NAIC standards and other requirements of this section without reference to this subsection (Social Security Act section 1882 (t)(l)(P), added by OBRA 1990 section 4358 which deals with Medicare **SELECT** policies.)

The NAIC model legislation for implementing these provisions includes the following additional clarification that, at any time at the request of an insured individual, or upon termination of the Medicare **SELECT** program, issuers must make available to each insured "...any Medicare supplement policy or certificate offered by the issuer which has comparable or lesser benefits and which does not contain a restricted network provision."

Given this language, states have made at least three different interpretations of what unrestricted or conversion products Medicare **SELECT** insurers must offer to their beneficiaries:

- (1) Some states have ruled that **SELECT** insurers need not offer any unrestricted plan unless they otherwise offer such plans for sale. Within this group **are** two subgroups, (a) states that require no alternative or conversion product at all (the two waiver states, Minnesota and Wisconsin are in this category) and (b) states that require that all insurers at least offer Plan A **SELECT** (California plans regulated by the Department of Corporations **[DOC]** fall in this category);
- (2) Other states have ruled that all **SELECT** insurers must offer at least a standard Plan A (most **SELECT**' states have made this interpretation); and
- (3) Indiana has ruled that all **SELECT** insurers must offer a one-to-one corresponding standard plan for each **SELECT** plan they offer.

Interpretations (1a) and (1b), which permit issuers to offer only restricted network plans, are more palatable to **HMOs**, which do not and, sometimes, cannot offer plans without a network restriction. Only two states that mandate issuers to offer standard plan A, Alabama and

Kentucky, have significant involvement by **HMOs**. Issuers **in** Alabama offer, but actively discourage, enrollment in standard Plan A, with **full** concurrence of state regulators. The two SELECT companies **in** Kentucky are both licensed as **HMOs**, but they are both wholly **owned** subsidiaries of fee-for-service insurers (**Humana** and **BCBS**), so **offering** a fee-for-service insurance product is not a regulatory problem for these companies.

At the other **extreme**, the **interpretation** requiring a one-to-one correspondence tends to discourage all types of **firms from participating** in SELECT. Most firms we interviewed were very selective about which of the standard **plans they** were interested in offering as either SELECT or standard unrestricted plans. Among SELECT participants, only Bankers routinely offers the full range of standard plans (**except J** in most places). **This** interpretation significantly narrowed the range of SELECT products offered **by Humana**. **Humana** participates in southern Indiana because of its proximity **to Louisville**, which is its major Kentucky SELECT market, but has restricted its usual SELECT offerings (A, **B, C, F**, and H) to A, B, and C because it is unwilling to offer F and H as unrestricted **plans**.

### **3.2.3.2 Innovative Benefits**

The **framers** of the **OBRA** 1990 innovative benefits provisions at Congress, HCFA, and NAIC deliberately **left** it up **to** state **regulators** to **determine** what would qualify as an innovative benefit. Depending on how each state interpreted or applied the innovative benefits provisions, they tended to either **encourage** or discourage insurers' **participation** in Medicare; SELECT,

Some insurance departments have **actively established** a definition and some have responded to specific requests rather than **formulating** a general policy. Some states have been very restrictive **in** their interpretation of innovative benefits, allowing none at all. Others have allowed none **for** standard plans but **have** approved them **for** SELECT plans. Some have specified that the benefit not be related to any **benefit** in a **standard** package, while other states have permitted expansions of existing benefits. Some **have** allowed alterations within particular benefits package, while others have **allowed** benefits from one plan to be added to another to create hybrid packages.

States that permitted innovative benefits exceptions enabled some insurers to participate more easily by converting existing benefits packages that did not conform to the standard Medigap packages to **SELECT** status. In California and Alabama, approval of innovative benefits was a key factor that enabled the Blue Cross organizations to designate pre-standardization products as **SELECT** and “roll-over” a large number of beneficiaries into **SELECT**.<sup>4</sup> Conversely, states that did not permit innovative benefits for **SELECT** plans made it potentially more **difficult** for insurers to offer **SELECT** because they could not convert existing, non-conforming plans. Furthermore, the variation among states would mean that commercial insurers obtaining an innovative benefits exception in one state could not offer the same plan in another state with a different interpretation.

In addition to the impact on insurers, the innovative benefits provision has an effect on beneficiaries. Because it creates plans that do not fit the standard models, it tends to work against the objective of simplifying benefit package choices for the consumer. A more specific, consistent definition of innovative benefits would help assure that consumers face the standard plan choices envisioned under **OBRA** 1990.

### **3.2.3.3 3-Year Sunset Provision**

The third aspect of Federal law that has discouraged participation in Medicare **SELECT** is the sunset provision, which originally ended the program after **three** years, on December **31, 1994**. In our interviews about half-way **through** the three-year period at BCBS organizations and Medicare supplemental insurers that are not offering **SELECT**, and at national insurance industry associations, their representatives indicated that this was a significant problem. Unless a firm is already offering a similar product, three years is not enough time to develop a product and a provider network, market it, and recover the initial investment. Without the assurance of a longer sales period over which to recover its investment and earn a profit, many insurers were unwilling to enter this arena. Medicare **SELECT** has subsequently been extended twice, for six months until June **30, 1995** and again for three years until June **30, 1998**.

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<sup>4</sup> In 1995, Blue **Cross** of California discontinued sales of this product and began to offer plans A, F, and **J** as **SELECT**.

#### 3.2.3.4 Limitation of SELECT to 15 States

'The fourth **provision is the** limitation of the program to 15 states. While this provision was added by legislators who were skeptical that **SELECT** would stimulate the growth of network-based plans, it did not adequately **take** account of what was already happening in the marketplace. Far from promoting development of network-based plans, OBRA 1990 forced companies to shut down existing operations in the **excluded** states. **Humana**, which offered only restricted network Medicare supplements prior to **OBRA** 1990, had to cease Medicare supplement sales in Colorado, Georgia, Louisiana, Mississippi, Nevada, **Tennessee**, Virginia, and West Virginia (mostly hospital-only networks, but Colorado, Georgia, and Virginia had hospital and physician networks). **Olympic** and **Bankers** no longer sell or pursue restricted network supplements in New Hampshire and Nevada. Complete Health in Alabama curtailed plans to expand into several other **southern** states. The legislation **that** extended the Medicare SELECT program through June 1998 also **extended** it to all 50 **states**.

However, the restriction of SELECT to 15 states had no effect on unregulated network Medigap products offered by **HMOs** and **PPOs** in some states, especially California, because the insuring organizations and state insurance departments **did** not believe that these products were covered by the **SELECT** regulations.

#### 3.2.3.5 Medicare Part B Safe Harbor

Finally, the: **Office** of the Inspector **General** (OIG) of the Department of Health and Human Services ruled that insurers could negotiate discounts or rebates of the Part A hospital deductible without violating Medicare anti-kickback regulations, but that they could not do so for the Part B coinsurance. The availability of the Part A safe harbor together with the absence of a Part B safe harbor encouraged the development **of SELECT** plans that excluded physicians from the provider **networks**. As discussed earlier, when physicians are excluded, the model of coordinated care managed **by** a preferred, efficient physician is not available and the only source of cost savings is the discount on **the** Part A deductible. **This** model is not consistent with **our** understanding of Congress' intent in authorizing **SELECT**.

It is **our** understanding that **the** **OIG** **provided** the Part A safe harbor 'because it was convinced that the combination of **DRG** payment rates, existing Medicare utilization control

mechanisms, and the safe harbor limitations on cost-shifting were adequate safeguards against increased inpatient utilization rates that would increase costs to the Medicare program. However, the OIG did not believe that there were adequate alternative safeguards against overutilization of Part B services that might result from discounts of the Part B coinsurance.

### **3.2.4 Impact of the State Regulatory Environment on SELECT Implementation**

We found that the political, legislative, and regulatory environment in the states we visited had a profound impact on how SELECT was implemented and what organizations participated as SELECT insurers. These factors included (a) legislative and regulatory actions and adaptations, (b) other, **potentially** conflicting state legislation, and (c) the role of state regulators.

#### **3.2.4.1 Legislative and Regulatory Actions**

Some actions of legislators and regulators tended to hasten the sale of SELECT products and others tended to delay it. In Texas, for example, the legislature was involved with other issues and not willing to consider legislation for implementing Medicare SELECT until it was too late to be used for early applicants. Rather than postpone the implementation of SELECT, the Department of Insurance permitted early applicants to begin sales before the plan of operation was approved under a “file and use” arrangement. Insurers agreed to implement any changes required once legislation and regulations governing these products were finalized. Although some adjustments ultimately needed to be made in these products, the changes were relatively minor. So, products substantially in compliance with **OBRA** were on the market **significantly** sooner than they would have been without this decision by the state regulatory agency. In contrast, the California Legislature enacted legislation that authorized the Department of Insurance to begin regulating SELECT in **July** 1993 instead of July 1992 as specified by OBRA 1990. Consequently, the Department of Insurance did not review applications that were submitted in 1992 and allowed **PPOs** to continue selling **pre-OBRA** products. The insurance department staff believed that this strategy better served the interests of consumers and insurers.

### 3.2.4.2 Other State Legislation

In some **cases**, existing state laws **not** directly related to Medicare SELECT also affected **the** way in **which** SELECT **activities** evolved. In Florida, the state law requiring that **all** plans offered by **HMOs** must include **comprehensive** benefits precluded HMO participation in **SELECT**, once **the** Department of Insurance decided that the conversion provision of **OBRA** 1990 **required** all SELECT insurers to offer standard plan A. Although SELECT plan **J**, the most comprehensive supplement, **might** have met the state requirement, plan A clearly did not. Texas has a state **law which** prohibits restricted pharmacy networks and requires networks to include any willing provider if it (establishes a pharmacy network. As a result, **Humana**, which offers **SELECT** plan **H** with **restricted** pharmacy networks in other states, does not offer SELECT **H** in Texas. In Indiana, **all** insurance products that employ **networks** of providers are **subject** to an “any **willing** provider” provision, which precludes establishing exclusive **networks**. This resulted in **Blue Cross Blue Shield** of Indiana deciding not to **apply** for approval as a SELECT insurer, although they were approved to sell SELECT in 1995.

A number of states, including California., Texas, **and** Alabama, lack statutory authority to regulate provider-based **PPOs** that are not operated by insurance companies. These **PPOs** must apply for SELECT status as an insurer or HMO **in** these states, except in California, where **PPOs** were “grandfathered” (i.e., not required to submit applications at **all**) even though the new statute gave the Department of Insurance the authority to **regulate** their SELECT activities. In these cases, the applicable regulations do **not fully fit** provider-based **PPOs**, making it difficult for them to qualify as SELECT insurers.

### 3.2.4.3 Role of State Agencies

Insurance **departments** generally take a passive regulatory role, responding to applications, reviewing rates, and assuring financial solvency, rather than actively encouraging or discouraging particular programs. Nevertheless, insurers have strikingly different views of the stringency or leniency of **different** state insurance regulators. If insurers feel that an insurance department’s **review** process is unnecessarily arduous or time-consuming, they will be reluctant to submit an application, particularly for a network **product** with which the department may have little experience.

### 3.2.5 Impact of Local Market Factors on SELECT Implementation

Several characteristics of the market for managed care products in the state have had an impact on the implementation of SELECT. They include (1) the extent of competition among insurers and providers, (2) the experience that insurers and beneficiaries have had with managed care products in the past, (3) the prevalence of employer-sponsored HMO enrollment and retiree health benefits, (4) the prevalence of Medicare assignment, and (5) state health insurance reform initiatives.

#### 3.2.5.1 Competition Among Insurers

Several SELECT' insurers reported that the behavior of key competitors influenced their decisions about whether or not to offer a SELECT product, which plan designs to choose, how to price the product, what type of network to offer, and how to market the product. For example, **Humana** has been one of the most active companies seeking approval for Medicare SELECT products. It was an early entrant and strong force in half the states authorized to approve SELECT plans. Several insurers and providers perceived a threat to their Medicare market share from **Humana** and responded with their own **SELECT** products. For example, hospitals that were in direct competition with what were then Humana-owned hospitals in Texas and Alabama developed relationships with Olympic and sought approval for their own SELECT' plans. Even BCBS plans, which tend to have very large shares of the Medicare supplement market in their respective states, were concerned about maintaining their market-share and sought SELECT' approval to assure that they would be able to continue to compete effectively for the **full** range of health insurance products in their state. Some smaller **firms** offering SELECT focused on specific market segments where they thought they could compete effectively with the larger dominant SELECT insurers. For example, some reasoned that they could compete most **effectively** with hospital-only networks by offering a full service network. If BCBS was relatively expensive, some reasoned they should compete on price and go after market segments of little interest to the Blues.

Second, an HMO, whether experienced or inexperienced with Medicare capitation, may decide that it does not want to operate a Medicare HMO in a particular market because it feels that the Medicare capitation rate is inadequate to provide its required return on investment. This

motivation is particularly strong in markets where competing **HMOs** are offering “zero premium” Medicare **HMOs**, in which the HMO accepts the Medicare capitation rate as the entire premium and charges the beneficiary nothing. With zero premium competition, **HMOs** that feel the Medicare capitation is inadequate cannot compensate by charging an additional premium to the beneficiary. SELECT enables **HMOs** to use their provider networks for a Medicare product without offering a Medicare HMO.

Finally, an insurer with a Medicare HMO may want to offer SELECT as a transition product for Medicare beneficiaries who are wary of the full network restrictions required by Medicare **HMOs**. Although there are usually no gatekeepers involved, SELECT acts like a point-of-service plan in this respect. Beneficiaries who choose to leave the network for a specific service pay more out of pocket because they lose their supplemental reimbursement. However, they retain most of their coverage because Medicare pays regardless of whether or not a SELECT network provider is used. We found each of these market-based motivations for SELECT at work.

Several **HMOs** that entered the SELECT market as an alternative to risk or cost contracting told us that their experience with the limited supplemental benefit packages and the weak incentives to manage utilization in SELECT plans have moved them to reconsider risk contracts. Most of them indicated that they would keep but de-emphasize their SELECT offerings after obtaining a risk contract, using them as bridge products for beneficiaries who are not willing to subscribe to a full risk arrangement.

### **3.2.5.2 HMO Market Penetration and Employer-sponsored Retiree Benefits**

The relationship between employers and **HMOs** in a market area affects the propensity of **HMOs** to offer SELECT products in two ways. First, in markets with significant employer-sponsored HMO coverage for active workers, we found that **HMOs** want to offer a Medicare supplement as a conversion product for members who are retiring, so that the members can continue using the HMO after they are covered by Medicare. SELECT is attractive to these **HMOs** if they are unwilling to undertake risk or cost contracts. They are more interested in serving their existing members than in the Medicare market in general and, therefore, they do

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not market SELECT aggressively to the general public. This was the most common reason given for SELECT participation by the Wisconsin HMOs.

Second, the market for **SELECT** (and all other individual and association-based Medicare supplements) is also affected by the extent to which employers provide group coverage to retirees. Medicare beneficiaries with this kind of coverage available are unlikely to be in the market for individual or association-based Medicare supplements. According to the benefits consulting firm, Foster Higgins, the percentage of firms offering group coverage to retirees and the scope of benefits offered by firms that continue to do so are decreasing (Foster Higgins, 1993). This trend will increase the number of Medicare beneficiaries seeking to buy individual supplements and encourage more HMOs to provide supplements as a service or convenience to their employer group clients. The most striking example of this motivation is Health Partners of Alabama which sells its SELECT product exclusively to retirees of USX Corporation and offers only plan J because it is closest to the comprehensive benefits beneficiaries had before retirement.

#### **3.2.5.3 Medicare Assignment**

Two insurers suggested that Medicare SELECT can increase beneficiaries' access to providers who accept assignment, thereby reducing the need for coverage for excess charges and possibly changing the attitude toward assignment among physicians. In North Dakota, which has a 53 percent Medicare participation rate, 73 percent of physicians joined the SELECT network. Although it is too soon to have an effect, it is possible that Medicare participation through **SELECT** could increase the proportion of physicians willing to accept Medicare assignment for all beneficiaries. In Washington, Kitsap Physicians Service reported that relatively few physicians in its 3-county service area participate in Medicare. Thus, they believe that SELECT offers beneficiaries in this community a way to avoid excess charges that is otherwise unavailable.

#### **3.2.5.4 State Health Insurance Reform**

The last major market issue is state health insurance reform. States are moving in various directions and at varying speeds to develop and implement state-specific reforms. This has created an unstable climate for health insurers in states moving most rapidly toward system reforms. Some insurers that would otherwise have been interested in SELECT

(e.g., BCBS organizations) had not pursued it at the time of our site visits because their resources were committed to deal with the much larger issue of statewide reform. This was a significant factor in Washington, where none of the nine BCBS organizations had submitted an application at the time of our interviews (one has since been approved).

### 3.2.6 Rationale for Choosing Plans to Offer as SELECT

Insurers who offer SELECT, other than **HMOs** or those in waiver states, give high priority in their choice of offerings to the model plans that they believe are least likely to result in adverse selection. Their plans typically include benefits likely to appeal to a broad spectrum of Medicare beneficiaries, such as coverage for deductibles, but they generally exclude outpatient drugs or at-home recovery benefits, which might tend to be selected by beneficiaries with greater medical requirements. The pharmacy benefit is a particular concern for these insurers because they believe that beneficiaries who are on long-term drug regimens for chronic conditions can easily compute the trade-off between highly predictable monthly drug costs and the marginal premium for plans that cover pharmacy expenses, thus **almost** assuring adverse selection. SELECT insurers that offer plan H, which covers pharmacy services, also expressed this belief but they decided to offer at least one plan that covers pharmacy services because they do not want to exclude the segment of the market that values pharmacy coverage highly.

These benefit choices are consistent with choices typically made for fee-for-service insurance plans and **PPOs** but they are not consistent with the philosophy of traditional HMO managed care, which places a high value on comprehensive coverage. Within the limitations of the packages available, **HMOs** tend to opt for the richest benefit packages, including drugs, home health, and preventive services.

### 3.2.7 Physician Payment Options

**Traditionally**, Medicare supplements have reimbursed providers for covered items after Medicare has adjudicated the provider's claim and issued an Explanation of Medical Benefits. With SELECT, there are 2 distinct styles of insurer-provider payment relationships. The first is the traditional supplemental insurance model in which the provider bills Medicare for 80 percent of the allowable cost and then bills the SELECT insurer for the 20 percent balance. The second model is the HMO model, in which the HMO pays its providers for Medicare beneficiaries the

same way it pays them for anyone (salary, **capitation**, fee schedule). The HMO pays the entire amount to the physician then bills Medicare to recover the 80 percent. The beneficiaries' 20 percent coinsurance is covered by the monthly premiums. This model is also used by some health care service corporations. It offers a real advantage to participating physicians because they submit only one bill to a local organization that views service to the physician as one of its objectives. It avoids multiple **billing** and minimizes adjudication problems for the physician.

### 3.2.8 SELECT Enrollment

At the time of the Case Study Report, we found that only a small percentage of Medicare beneficiaries in the SELECT states were enrolled in SELECT plans. Of the 14.1 million Medicare beneficiaries living in the 12 states with active SELECT plans on July 1, 1993, we found **only** about 353,711 (2.5 percent) enrolled in SELECT. However, about 273,000 of these beneficiaries were roll-overs from three Blue Cross Blue Shield organizations: 187,000 of **the 200,000 SELECT** beneficiaries in Alabama, over 37,000 of the 38,000 in California, and all of **the 48,000 in Minnesota. The remaining** 81,000 **SELECT** beneficiaries represented 0.6 percent of the Medicare beneficiary population in these states.

By February 1995, total SELECT **enrollment** had increased to 444,945, an increase of 26 percent in about 18 months. SELECT beneficiaries accounted for about 3.0 percent of Medicare beneficiaries. In November 1995, as this report is being completed, we estimate that 489,327 persons are enrolled in **SELECT** plans, accounting for 2.8 percent of Medicare beneficiaries in the demonstration states that have approved SELECT plans.

Between February and November 1995, the number of SELECT beneficiaries grew about 10 percent. The number of state-specific companies issuing SELECT policies (i.e., counting each company separately in each state in which it offers SELECT) increased from 63 to 99, about 57 percent. The dramatic increase is due in part to the entry of National Foundation Life Insurance Company into the SELECT market. National Foundation has obtained approval to sell a SELECT policy for itself and as many as two of its corporate affiliates, American Insurance Company of Texas and National Financial Insurance Company, in seven states, accounting for 19 of the 36 additional issuers. Pyramid accounts for six (in six states) and Pioneer accounts for five (in five states).

As noted in the Case Study Report, it is difficult to obtain an accurate count of SELECT enrollees. Often, insurers participating in SELECT do not have current counts of enrollment in SELECT plans easily available. Consequently, it is difficult to obtain accurate enrollment **figures** for a consistent point in time from all the participating insurers. It has been even more difficult to obtain updates after the site visits were completed. **Defining** SELECT plans is also a problem. We have included the rollovers in Alabama, California, and Minnesota in our counts but we do not include beneficiaries who are still enrolled in closed-book, **pre-OBRA** restricted network supplements. Although new sales are no longer permitted, insurers continue to operate these plans for existing beneficiaries in many states, including those that have not been designated SELECT states. Beneficiaries who are interested in restricted network plans will probably stay with these pre-OBRA plans for a short period of time because, according to the insurers, the benefits are superior to those of **OBRA** 1990 standard plans. However, because they are **closed-books**, the premiums for most of these plans will rise rapidly and beneficiaries should begin to shift to less expensive products.

Finally, one plan that we have listed as a SELECT product, Omni Health Plan in California, claims that its Medigap product is not SELECT. Omni was approved to sell this product by the DOC before the SELECT regulations took effect. DOC did not require Omni to file a new application for approval after the SELECT regulations took effect, instead simply designating Omni as a SELECT plan. Omni disagrees that it is a SELECT insurer and has declined to provide aggregate enrollment statistics or lists of enrollees for the cost analysis.

### **3.2.9 Grievances and Beneficiary Satisfaction**

State insurance departments and SELECT insurers reported no instances of beneficiary **grievances** or problems regarding SELECT products. This information was obtained in the Spring and early **Summer** of 1993 when many SELECT products were new and enrollment was even more limited than it is now. Thus, the finding that there are no grievances or problems was clearly **preliminary**. Additional information about beneficiary grievances and satisfaction is provided in Chapter 5 based on the results of the beneficiary survey.

### 3.3 Medicare **SELECT Premiums**

One of the most interesting aspects of SELECT is its potential for reducing the Medigap premiums faced by Medicare beneficiaries. Yet comparison of premiums is one of the most difficult and problematic aspects of the evaluation. Premiums depend on the benefits covered, and the **medical underwriting** policies, historical experience, subjective actuarial judgment, administrative overhead, and profit objectives of the company. Thus, it is difficult to compare one company's premiums to another.

In this case, the problem is simplified somewhat by the standardization of Medigap benefits under OBRA 1990 regulations. Thus, it is **possible** to compare premiums within each of the standard packages A through J with some degree of validity. Furthermore, the "guaranteed issue" requirement for beneficiaries within six months of their Medicare Part B eligibility **minimizes** the variation due to underwriting for **65-year-old** beneficiaries. Differences in medical underwriting policies, historical experience, subjective actuarial judgment, administrative overhead, and profit objectives of the company can be controlled to a great extent by limiting the comparisons to plans offered as both **SELECT** and non-network standard plans by the same insurer. Nevertheless, there are **still** several **problems** to overcome.

First, SELECT plans are permitted under state insurance department authority to include "innovative benefits" that vary from the **standard** packages. Thus, even though a plan may be designated by **one** of the 10 letters, its benefits may differ. This is **a** minor problem. In most cases because innovative benefits exceptions have not been granted widely and, where they have, they are usually minor. However, some **SELECT** policies differ significantly **from** any of the standard plans,

Second, some insurers **use** issue age **premiums** and others use attained age premiums. Holding **all** else equal, issue age premiums will be higher than attained age premiums for younger persons and lower for older persons. This phenomenon **exists** for both SELECT and standard Medigap plans. Thus, premium differences could be attributable to the use of different computational **methods** rather than in the SELECT program.

**Third**, limiting comparisons to plans offered by the same company only addresses the issue of whether the same company prices SELECT lower than its own competing standard plan. In

determining whether SELECT really reduces prices for beneficiaries, it is important to understand whether it is less expensive than other products on the market that provide identical benefits. However, it is very difficult to identify every premium for every standard Medigap product. In most states there are several dozen Medigap insurers, each offering a different set of standard products. Most insurance departments in SELECT states do not have automated data bases that record all premiums, so retrieving the premiums for all approved products usually requires an extensive manual search of filings.

Fourth, SELECT insurers do not always offer the same benefits package A through J as both SELECT and non-network standard products. Only Indiana requires insurers to do this. Elsewhere, some insurers do so voluntarily, but many do not. Thus, comparisons of SELECT with standard plans within insurer, which would allow us to control for company-specific history, underwriting policies, actuarial judgement, and retention policies, are not always available.

Finally, insurers often use many different rate categories and comparisons for one may not be valid for others. For example, most insurers stratify rates by age and sex (although some use community rates in which one rate is applied to everyone). But some have additional stratification for smokers and zip codes. To make matters even more complicated, insurers often use different age categories.

To overcome the problem of multiple rate categories, we decided to make the comparisons for a “modal” beneficiary. We chose a 65 year-old, non-smoking woman because most persons are shopping for Medigap when they first become eligible for Medicare and there are more women than men in the population at age 65. Using a **65-year-old** also controlled for underwriting differences because these persons are subject to the guaranteed issue regulations.

We decided to make comparisons within company to control for variation in actuarial policies and historical experience. To determine if beneficiaries can get the same benefits package from another company at a lower price than the SELECT product, we decided to make a second comparison with another company. **Ideally**, we would compare the SELECT premium **with the** lowest premium offered in the state for the same benefits package. However, insurance departments are unable to provide this information without extensive manual searches. Therefore, we chose **Prudential/AARP** for comparison because it is (1) the largest Medigap insurer in the

nation, (2) it sells all 10 plans in almost every **state**, and (3) it does not medically underwrite its plans, except for plans **H,I**, and **J** which cover prescription drugs. Although **Prudential/AARP** is not necessarily the least expensive **version** of each **plan**, it is among the most widely available. **Prudential/AARP** plans are essentially community **rated** and many of the **SELECT** plans are attained-age rated, which would **tend** to bias the comparisons in favor of the **SELECT** plans for younger beneficiaries. Thus, we decided to make the: comparisons for beneficiaries at 65 and 75 years of age.

The comparisons were made by computing **the** ratio of the company- and **state-specific-SELECT** premium (numerator) to the company- and state-specific comparison premium (denominator). Thus, a ratio less than 1.0 **indicates** that the **SELECT** policy is less expensive and a ratio greater than 1.0 indicates **that** it is more expensive. The **ratios** were then arrayed separately by benefits package (A-J) for each age group (65 or 75 years old), and comparison product (**Prudential/AARP** or the **SELECT** insurer's standard plan). Thus, we have four exhibits that display the ratios **arrayed** in order for each benefit package A through **J**. Exhibit 3.2 displays the ratios comparing **SELECT** with standard premiums **from** the same insurer for **65-year-old** non-smoking women. Exhibit 3.3 displays **the** same comparison **for 75-year-old** non-smoking women. Exhibit 3.4 displays the comparison with **Prudential/AARP** for **65-year-olds** and Exhibit 3.5 shows the comparison with **Prudential/AARP** for **75-year-olds**. All comparisons **are** for 1995 premiums. California, Minnesota, and Wisconsin are excluded from the comparisons because **SELECT plans** in those states do not conform to **the** 10 standard Medigap policies and Massachusetts is excluded because it has no **SELECT plans**.<sup>5</sup>

The **number** of comparisons **we** were able to make for each of the plan types ranged from one to 35. To **summarize** the **array** of ratios for **each** benefits package, these four exhibits display the mean ratio; the **25th**, 50th (median), and 75th percentile ratios; and the percentage of **the** ratios that are less than 1.0, indicating that **SELECT** is less expensive than the comparison plan.

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<sup>5</sup> **When** 1995 premiums were obtained **from insurers** in the **Spring** of 1995, Blue Cross of California's **SELECT** plan did not match any of the 10 **standard** plans, but was **essentially a** hybrid of **plans F and J**. **In** March 1995 they **began** to offer plan A. In July **1995**, they ceased new sales of their original **SELECT** plan and began offering **standard plans F and J** as **SELECT**, in addition to **plan A**. Thus, they **are** not included **in** these comparisons.

**Exhibit 3.2**  
**Ratio of SELECT to Standard Policy Premiums - 1995**  
Rates for a 65 Year Old Female Non-Smoker

	A	B	C	D	F	H
	0.380	0.520	0.602	0.717	0.549	0.789
	0.397	0.538	0.606	0.862	0.620	0.880
	0.416	0.618	0.623		0.638	
	0.419	0.671	0.669		0.644	
	0.535	0.702	0.684		0.689	
	0.585	0.726	0.719		0.756	
	0.638	0.738	0.733		0.717	
	0.647	0.769	0.758		0.798	
	0.648	0.771	0.757		0.802	
	0.671	0.771	0.771		0.830	
	0.821	0.775	0.773		0.830	
	0.825	0.775	0.783		0.837	
	0.831	0.782	0.805		0.839	
	0.833	0.799	0.805		0.842	
	0.833	0.802	0.813		0.843	
	0.874	0.806	0.813		0.850	
	0.875	0.806	0.827		0.895	
	0.876	0.809	0.827			
	0.888	0.852	0.828			
	0.909	0.852	0.836			
	0.939	0.867	0.640			
	0.975	0.893	0.883			
	1.000					
	1.000					
	1.000					
	1.000					
	1.000					
	1.163					
	1.168					
<b>Percentile:</b>						
25th	0.647	0.729	0.723	NA	0.689	NA
50th	0.833	0.775	0.778	0.789	0.802	0.835
75th	0.975	0.806	0.823	NA	0.839	NA
<b>mean</b>	<b>0.798</b>	<b>0.756</b>	<b>0.762</b>	<b>0.789</b>	<b>0.763</b>	<b>0.835</b>
<b>Percent of ratios &lt; 1.0</b>	<b>76</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Exhibit 3.3**  
**Ratio of SELECT' to Standard Policy Premiums - 1995**  
Rates for a 75 Year Old Female Non-Smoker

	A	B	C	D	F	H
	0.354	0.520	0.594	0.745	0.527	0.789
	0.398	0.600	0.602	0.782	0.585	0.881
	0.416	0.618	0.623		0.627	
	0.419	0.670	0.684		0.627	
	0.537	0.691	0.751		0.729	
	0.585	0.712	0.752		0.745	
	0.604	0.722	0.766		0.776	
	0.638	0.736	0.766		0.779	
	0.648	0.745	0.766		0.816	
	0.687	0.760	0.781		0.818	
	0.810	0.777	0.789		0.830	
	0.831	0.777	0.810		0.830	
	0.874	0.779	0.810		0.833	
	0.875	0.779	0.811		0.838	
	0.876	0.779	0.814		0.838	
	0.887	0.797	0.814		0.838	
	0.892	0.798	0.815		0.882	
	0.907	0.798	0.815			
	0.909	0.808	0.817			
	0.973	0.808	0.829			
	0.975	0.839	0.831			
	1.000	0.843	0.884			
	1.000					
	1.000					
	1.000					
	1.000					
	1.005					
	1.015					
	1.144					
<b>Percentile:</b>						
25th	0.638	0.714	0.756	NA	0.729	NA
50th	0.876	0.777	0.799	0.763	0.816	0.835
75th	1.000	0.798	0.815	NA	0.833	NA
<b>mean</b>	0.802	0.743	0.769	0.763	0.760	0.835
<b>Percent of ratios &lt; 1.0</b>	72	100	100	100	100	100

**Exhibit 3.4**  
**Ratio of SELECT to Prudential Premiums -- 1995**  
Rates for a 65 Year Old Female Non-Smoker

	A	B	C	D	E	F	G	H	I	J
	0.754	0.478	0.533	0.708	1.010	0.558	0.976	0.819	1.322	1.453
	0.756	0.539	0.620	0.850		0.681		0.847		
	0.780	0.581	0.645	0.917		0.686		0.949		
	0.787	0.582	0.668	0.947		0.698		1.029		
	0.861	0.660	0.688	0.996		0.717		1.098		
	0.923	0.660	0.714			0.720		1.153		
	0.931	0.673	0.724			0.745		1.191		
	0.953	0.676	0.732			0.750		1.208		
	0.982	0.688	0.738			0.765		1.404		
	0.993	0.702	0.745			0.776				
	1.056	0.711	0.750			0.801				
	1.058	0.715	0.754			0.814				
	1.059	0.720	0.761			0.825				
	1.072	0.734	0.768			0.852				
	1.085	0.740	0.775			0.879				
	1.089	0.767	0.797			0.888				
	1.099	0.766	0.800			0.929				
	1.141	0.774	0.809			0.931				
	1.207	0.779	0.821			0.932				
	1.213	0.789	0.835			0.940				
	1.219	0.791	0.851			0.941				
	1.261	0.805	0.853			0.962				
	1.264	0.808	0.905			0.967				
	1.268	0.816	0.918			0.978				
	1.275	0.832	0.922			0.990				
	1.306	0.897	0.930			1.224				
	1.330	0.904	0.935			1.340				
	1.343	0.913	0.970							
	1.348	0.922	0.981							
	1.380	0.942	0.990							
	1.385	0.946	1.020							
		0.966	1.022							
		1.002	1.022							
		1.104	1.135							
		1.213	1.221							
<b>Percentile:</b>										
25th	0.968	0.695	0.741	0.850	NA	0.748	NA	0.949	NA	NA
50th	1.089	0.774	0.809	0.917	1.010	0.852	0.976	1.098	1.322	1.453
75th	1.266	0.901	0.932	0.947	NA	0.940	NA	1.191	NA	NA
<b>mean</b>	1.103	0.789	0.839	0.884	1.010	0.863	0.976	1.078	1.322	1.453
<b>Percent of ratios &lt; 1.0</b>	33	89	86	100	0	93	100	33	0	0

**Exhibit 3.5**  
**Ratio of SELECT to Prudential Premiums -- 1995**  
Rates for a 7.5 Year Old Female Non-Smoker

	A	B	C	D	E	F	G	H	I	J
	0.780	0.539	0.668	0.708	1.396	0.686	1.344	0.927	1.745	1.940
	0.787	0.582	0.686	0.825		0.718		0.949		
	0.861	0.604	0.704	0.968		0.720		1.029		
	0.976	0.623	0.724	1.356		0.767		1.098		
	1.011	0.734	0.848	1.417		0.822		1.153		
	1.056	0.752	0.853			0.847		1.191		
	1.072	0.766	0.879			0.882		1.229		
	1.079	0.808	0.887			0.886		1.404		
	1.101	0.829	0.896			0.940		1.629		
	1.123	0.838	0.918			0.941				
	1.140	0.849	0.924			0.990				
	1.192	0.838	0.949			0.999				
	1.213	0.903	0.970			1.019				
	1.257	0.911	0.990			1.027				
	1.261	0.923	1.011			1.080				
	1.268	0.924	1.045			1.126				
	1.294	0.956	1.049			1.128				
	1.327	0.971	1.050			1.146				
	1.330	0.976	1.052			1.150				
	1.343	0.977	1.054			1.177				
	1.394	0.999	1.057			1.224				
	1.435	1.002	1.057			1.225				
	1.436	1.005	1.058			1.227				
	1.476	1.013	1.091			1.286				
	1.500	1.024	1.126			1.340				
	1.503	1.038	1.131			1.367				
	1.551	1.073	1.135			1.395				
	1.578	1.104	1.137							
	1.778	1.115	1.181							
	1.778	1.134	1.221							
	1.925	1.151	1.229							
		1.213	1.282							
		1.290	1.293							
		1.304	1.339							
		1.310	1.385							
<b>Percentile:</b>										
25th	1.090	0.834	0.907	0.825	NA	0.884	NA	1.029	NA	NA
50th	1.268	0.971	1.050	0.968	1.396	1.027	1.344	1.153	1.745	1.940
75th	1.456	1.056	1.133	1.356	NA	1.200	NA	1.229	NA	NA
<b>mean</b>	1.285	0.945	1.025	1.055	1.396	1.041	1.344	1.179	1.745	1.940
<b>Percent of ratios &lt; 1.0</b>	13	60	40	60	0	44	0	22	0	0

Of course, the summary statistics based on one observation have limited value. Exhibit 3.2 indicates that SELECT is clearly priced lower than the same benefits package offered as a standard non-network product by the same company. At the median, SELECT plans for **65-year-old** non-smoking women are priced 17-22 percent lower than the same benefits package offered by the same company as a standard plan. Of the 94 SELECT products described in Exhibit 3.2, only 7 (7.5 percent) had premiums equaling or exceeding those of the comparison plan (ratios greater than or equal to 1.0). All of the ratios of 1.0 or greater are for plan A, which is not surprising. Several insurers reported in the case studies that most, if not all, of the premium savings derived from SELECT come from the waiver or discount of the Part A deductible by network hospitals. Medigap plan A is the only one of the 10 that does not cover the Part A deductible, so this source of savings is not available.

Nevertheless, three-fourths of these companies price their SELECT plan A lower than their standard plan A. This may be due, in part, to a decision to price standard plan A high. Some insurers sell standard A only because it is required by state insurance regulations. Pricing it high would discourage beneficiaries from purchasing it and make the SELECT version appear to be priced low by comparison. This may account for some of the very low ratios observed for plan A. But leaving plan A aside, plans B, C, D, F, and H, which all cover the Part A deductible, are always less expensive in the SELECT version than in the standard version for this type of beneficiary. -

In Exhibit 3.3, we **find** almost the identical pattern for **75-year-old** non-smoking women. This finding is expected because companies typically use the same premium structure, attained- or issue-age, for both their SELECT and standard plans.

Exhibits 3.4 and 3.5 address the question of whether or not beneficiaries can **find** the same benefits package for lower premiums than SELECT from another company. Unfortunately, this analysis does not fully answer the question because the comparison plan from **Prudential/AARP** is not necessarily the lowest priced product available. Nevertheless, it is a useful comparison in the absence of data on the lowest price plan because Prudential/~ plans A-J are **widely** available and commonly purchased.

Of the 146 ratios displayed for **65-year-old** non-smoking women in Exhibit 3.4, 106 or 73 percent are less than 1.0. SELECT premiums are lower than the comparable **Prudential/AARP** premium in about three-fourths of the cases. Half the cases in **which** SELECT is more expensive than **Prudential/AARP** are for plan A. SELECT was more expensive in 21 of the 31 comparisons for plan A. SELECT was also more **expensive than Prudential/AARP** for two-thirds of the comparisons for plan H (6 of 9). However, plans B and C, which are offered as SELECT by the most companies, (35 each), and plan F, which is offered as SELECT by 27 companies, are almost always less expensive as SELECT. Of these: 97 comparisons, 87 or 90 percent are less expensive as SELECT than through **Prudential/AARP**.

The median ratio for plans A and H show the SELECT products about 9-10 percent higher cost on average than **Prudential/AARP**. The one ratio available for each of plans E, I, and J is also greater than 1.0; as high as 45 percent greater for plan J. For plans B, C, D, and F, the median ratios show SELECT plans on average about 8 percent (plan D) to 23 percent (plan B) less expensive than **Prudential/AARP**. The one comparison for plan G shows the SELECT premium about 2 percent lower than **Prudential/AARP**.

In Exhibit 3.5 for **75-year-old** women, we see the **impact** of attained-age premiums increasing the **average** SELECT price compared to the community-rated **Prudential/AARP** products. SELECT is now more expensive than **Prudential/AARP** for 63 percent of the ratios, compared to **only** 28 percent for **65-year-olds**. The medians are always greater than 1.0 except for plans B and D, where they show SELECT premiums about 3 percent below **Prudential/AARP**.

To **summarize** the findings for premiums:

1. **Except** for a few plan A policies, SELECT insurers clearly price SELECT policies for **65-year-old** non-smoking women lower than their own **standard** non-network versions of the same plans. The median differences **range** from about 17 percent for plans A and H to about 22 percent for plans B, C, and D. The pattern is **essentially** the same for **75-year-old** women.
2. For **65-year-old** women, about three-fourths of SELECT plans are less expensive than comparable **Prudential/AARP** plans. However, the pattern is less consistent by type of plan than it is when SELECT is compared to standard plans offered by SELECT insurers. Almost all plans B, C, D, F, and G are less expensive as SELECT than as the **Prudential/AARP**

product, with median premium differences ranging from 3 to 23 percent depending on plan. But almost all plans A, E, **H**, I, and J are more expensive as SELECT, with median differences ranging from 9 to 45 percent.

3. For **75-year-old** women, the relationship between SELECT and **Prudential/AARP** premiums reverses **compared** to **65-year-old** women. Only about one-third of SELECT premiums are less expensive than **Prudential/AARP** premiums (compared to three-fourths for **65-year-old** women). The median ratios exceeded 1.0 for every type of plan except plans B and D, which showed only a 3 percent differential in favor of SELECT. The shift between premiums for **65-year-old** women and **75-year-old** women probably reflects the use of attained age premiums for many SELECT products compared to the use of community rating by **Prudential/AARP**.

100

100

100

## 4.0 Non-participating Medigap Insurers and HMOs

The survey of insurers was designed to determine why some **HMOs** and Medigap insurance companies do not offer Medicare SELECT products. Together with the case studies and the beneficiary survey, the survey of non-participating insurers contributes to our description of the implementation process. Indemnity Medigap insurers and **HMOs** face different problems and incentives with respect to SELECT. For example, SELECT participation requires **HMOs** to offer a product with less-than-comprehensive benefits; something that some **HMOs find difficult** or impossible to do. Indemnity Medigap insurers that are not already heavily involved in managed care may face significant start-up costs associated with creating provider networks. Because their problems differ, the results of the insurer survey are presented separately for **HMOs** and Medigap insurers.

About 76 percent of nonparticipating **HMOs** and 90 percent of nonparticipating Medigap companies reported that they were aware of Medicare SELECT before receiving our questionnaire (Exhibit 4.1). Only 22 percent of the **HMOs** and 29 percent of the Medigap companies that were aware of SELECT had seriously considered offering it.

Exhibit 4.2 presents the percentage of organizations that gave a specific reason for not offering SELECT, when multiple reasons were permitted. About half the **HMOs** and Medigap companies that were aware of SELECT reported that the reason they were not offering it was that they hadn't had time to develop a product. This was the most commonly offered reason, except among **HMOs**, 57 percent of which expressed their preference for Medicare HMO arrangements as a reason for not offering SELECT. Thirty-six percent of **HMOs** reported that they do not serve the Medicare supplemental market at all and 29 percent of Medigap companies said they do not offer network products. Twenty percent of **HMOs** would not offer an unrestricted conversion product.

Interestingly, only 5 percent of **HMOs** and 6 percent of Medigap companies cited the absence of a Part B safe harbor as a problem. We do not know, however, if insurers were unaware of it, did not understand it, or did not see it as a barrier. The case study interviews with participating insurers and some nonparticipating BCBS organizations suggested that it was a much more important issue.

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## Exhibit 4.1

### Awareness and Interest in SELECT Among Nonparticipating Companies

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		Type of Insurer:		
		Total (n = 197)	HMO (n = 117)	Medigap (n = 80)
Aware of SELECT		82%	76%	90%
Considered Offering SELECT (Among those aware: of it)				
Not at all		37%	40%	33%
<b>Briefly</b>		37%	37%	38%
Seriously		25%	22%	29%

Exhibit 4.2  
Reasons for Not **Offering SELECT\***  
(All **Reasons** Reported)

	Type of Insurer:		
	Total (n = 155)	HMO (n = 86)	Medigap (n = 69)
Haven't Had Time	49%	48%	51%
<b>3-Year</b> Limit	37%	34%	41%
<b>Insufficient</b> Premium Differential	17%	17%	17%
Does Not Offer Network Plans	13%	NA	29%
Cost of Establishing Network and Administrative Systems too High	19%	9%	32%
Couldn't/Wouldn't Offer Unrestricted Conversion Product	11%	20%	0%
No Part B Safe Harbor	5%	5%	6%
Offers or Prefers <b>to Offer Risk/Cost/HCPP</b>	35%	57%	7%
Does Not Serve Medicare Supplemental Market	22%	36%	NA
No Control Over Medical Necessity Determination	11%	14%	7%
Lack Of Competitive Imperative	2%	2%	1%
<b>Finding Willing</b> Providers	1%	2%	0%
Regulatory Impediments	4%	3%	5%
<b>Other</b>	5%	2%	9%

\* Categories are not mutually exclusive; multiple responses were permitted.

Exhibit 4.3 presents the same data on **reasons** for not offering SELECT, but restricted to only the most **important** reason. **Among HMOs**, 42 percent prefer Medicare **HMO arrangements**. Nineteen. percent said they had not had time to develop a product and another 19 percent do not participate in the Medicare market at **all**. Among Medigap **companies**, 30 percent said that they had not had time given **competing** priorities, 20 percent cited the 3-year time limit, which 'was still in effect at the time of the survey, 15 **percent** said they do not offer network plans, and 14 percent believed that the cost of establishing a network and its administrative systems was too high.

The results in Exhibit. 4.3 suggest that nonparticipating **HMOs** fall into three main categories with respect to SELECT.

- (1) About three-fifths of them are not interested in **SELECT** because it does not fit with their traditional **lines** of business (the 4.2 percent that prefer **risk**, cost, or HCPP contracts and the 19 percent that do not serve the Medicare market).
- (2) About one-fifth see specific impediments or barriers that presumably would have to be overcome before: they would be willing or able to offer a SELECT product.
- (3) The remaining one-fifth **simply** have not had the time to become involved. This probably means that they also have not had time to consider other potential impediments. With the time to consider SELECT, some would undoubtedly proceed with an application while others would discover other barriers.

Medigap companies also fall into three: groups.

- (1) About 29 percent see the provider network itself as a barrier, either because they offer no network products (I. 5.2 percent) or because **the** cost of establishing a network for SELECT is too high (13.6 percent),
- (2) About **40** percent see specific impediments or barriers to participation.
- ( 3 About **30** percent have not **had** the time.

Exhibit 4.3

Most Important Reason for Not Offering SELECT

	Type of Insurer:		
	Total (n = 149)	HMO (n = 83)	Medigap (n = 66)
Haven't Had Time	24%	19.3%	30.3%
3-Year Limit	13%	7.2%	19.7%
Insufficient Premium Differential	3%	2.4%	4.6%
Does Not Offer Network Plans	7%	NA	15.2%
4-5 Cost of Establishing Network and Administrative Systems too High	7%	1.2%	13.6%
· Couldn't/Wouldn't Offer Unrestricted Conversion Product	1%	1.2%	0.0%
No Part B Safe Harbor	1%	1.2%	0.0%
Offers or Prefers to Offer <b>Risk/Cost/HCPP</b>	25%	42.2%	3.0%
Does Not Serve Medicare Supplemental Market	11%	19.3%	NA
Lack Of Competitive Imperative	1%	1.2%	1.5%
Finding Willing Providers	1%	1.2%	0.0%
Regulatory Impediments	3%	2.4%	4.6%
Other	3%	1.2%	7.6%
TOTAL	100%	100%	100%

## 5.0 Beneficiary Participation and Satisfaction

In this chapter we answer **questions** about what type of Medicare beneficiary has purchased SELECT products, how they learned about SELECT and why they bought it, and how satisfied they have been with it. All statistics are weighted population estimates presented by state. State-specific estimates are more meaningful than pooled estimates for all six states because the implementation of **SELECT** has **varied so** much by state. The populations of inference are the SELECT and post-standardization, non-network comparison populations defined for the: cost and use **analysis** in the six survey states. The comparison group is restricted to persons with non-network **standardized Medigap** policies. The statistics and tests of significance have been computed **using** RTT's **SUDAAN** software to account for design effects due to **unequal** weighting. Missing values for age, race, and sex were obtained from the Medicare **enrollment** data (**2, 2** and **0.4** percent respectively). Missing values for education (2 percent) were imputed from age, race, and sex, and missing values for income (25 percent) were imputed from age, race, sex and education using the: sequential hot deck method,

### 5.1 Awareness and Understanding of SELECT

SELECT and comparison **group** beneficiaries received **slightly** different interviews because questions about participation in **the** SELECT program, satisfaction with provider networks, and out-of-network use are meaningless for beneficiaries who do not participate in **SELECT**. They are also **meaningless** for beneficiaries who purchased SELECT products but are not aware that they are subject to **network** restrictions. Thus, the interview began with questions that asked if the respondent purchased a **SELECT** policy. Although marketing material is **required** to use the SELECT name, it sometimes does not and **when** it does the SELECT name may not be stressed. Beneficiaries who responded that they did not have a SELECT policy were asked about whether they are restricted to a list of **providers** authorized by their insurer. The question is further complicated by the fact that many **SELECT** policies do not use physician networks. Thus, beneficiaries were probed separately **about** hospital and physician networks. Beneficiaries who responded that they purchased a **SELECT** policy or were subject to hospital or physician network restrictions completed **the** **SELECT** interview. Beneficiaries who did not, completed the: comparison group interview.

### 5.1.1 SELECT Beneficiaries

The proportion of beneficiaries who were sampled as SELECT but reported that they are not subject to network restrictions was surprisingly high, ranging from 14 to percent to **29** percent among the six states (Exhibit 5.1). All SELECT insurers in Texas and Missouri, which have the highest proportions (29 and 26 percent), use only hospital networks and all the insurers in Wisconsin, which has the lowest proportion (14 percent), are **HMOs** with comparatively well defined physician networks. This suggests that beneficiaries are less cognizant of hospital restrictions than physician restrictions, which is consistent with the marketing strategy of insurers that use hospital-only networks. Several insurers told us during the case study that they use hospital networks and not physician networks because beneficiaries are less concerned about limits on which hospitals they can use.

It is also likely that network restrictions do not become obvious or salient to beneficiaries until they attempt to use a non-network provider and encounter the restriction. Since hospital stays are less common than physician visits, fewer beneficiaries will have actually encountered the hospital restriction. In some communities, all or most of the local hospitals or physicians might participate in the network. Again, this is more likely for hospitals than physicians. If so, beneficiaries may not perceive a restriction on free choice of provider, although technically one exists. Except for Alabama, the states with a very high percentage of providers participating in SELECT networks were not included in the survey. In Alabama, policyholders of BCBS, the one insurer with a high percentage of providers in its SELECT networks, were not included in the survey sample (they are included in the cost and utilization analyses based on claims data). Thus, very high provider participation rates is an explanation for this finding only if it occurs at the local community level.

Finally, beneficiaries may be unaware of their network restrictions because the sales presentation did not adequately inform them or because they simply forgot. Because we believe that SELECT sample members who denied having had a SELECT plan had assigned themselves to the comparison group incorrectly, they are treated as nonrespondents for the remaining analysis of beneficiary participation and satisfaction.

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Exhibit 5.1

Beneficiaries Self-Reported Insurance Status  
by Sampled Insurance Status

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	SELECT	Non-SELECT
<b><u>Total</u></b>		
Sampled as SELECT	77.0%	23.0%
Sampled as Comparison	4.4%	95.6%
<b><u>Alabama</u></b>		
Sampled as SELECT	78.9%	21.1%
Sampled as Comparison	5.0%	95.0%
<b><u>Arizona</u></b>		
Sampled as SELECT	80.8%	19.2%
Sampled as Comparison	5.9%	94.1%
<b>Florida</b>		
Sampled as SELECT	78.8%	21.2%
Sampled as Comparison	3.7%	96.3%
<b>Missouri</b>		
Sampled as SELECT	74.5%	25.5%
Sampled as Comparison	7.2%	92.8%
<b><u>Texas</u></b>		
Sampled as SELECT	71.0%	29.0%
Sampled as Comparison	3.9%	96.1%
<b><u>Wisconsin</u></b>		
Sampled as SELECT	86.1%	13.9%
Sampled as Comparison	2.7%	97.3%

### 5.1.2 Beneficiaries with Standard Medigap Policies

Beneficiaries in the comparison group, those who had purchased a standard unrestricted Medigap policy, were asked if they were aware of SELECT policies or Medigap policies that used hospital or physician networks. The percentage of standard Medigap beneficiaries who had heard of this type of policy ranged from 67 percent in Alabama to 79 percent in Missouri (Exhibit 5.2). However, respondents have a tendency to respond in the **affirmative** to questions about their awareness of some phenomenon because they want to appear knowledgeable. Therefore, we probed further by asking if they had received an explanation about this type of policy and if they had considered buying one. The percentage reporting that they had received an explanation ranged from 56 percent in Alabama to 75 percent in Arizona, only slightly lower than the percent reporting that they had heard of SELECT. However, the percentage that had considered buying a SELECT plan was considerably lower, ranging from 26 percent in **Florida** and Texas to 38 percent in Alabama.

These self-reported data about the awareness of SELECT among comparison group members should be used cautiously because it is possible that beneficiaries who have not purchased a Medicare SELECT product do not clearly distinguish between SELECT and Medicare **HMOs**. Both products use provider networks, the name SELECT is not always closely linked to SELECT products in marketing materials, and some Medicare **HMOs** use the word Select in the names of their Medicare HMO products. Some beneficiaries who reported that they were aware of a Medicare SELECT product may have been thinking of a Medicare HMO.

### 5.1.3 Knowledge of Medicare SELECT

Beneficiaries who knew they had purchased a SELECT policy were asked a series of five questions about Medicare SELECT to assess their knowledge. We also asked the SELECT knowledge questions of the comparison respondents who had considered buying SELECT. The quiz included questions about whether or not an enrollee receives full policy benefits when using a provider who **is** not part of the network, payment in an emergency situation, payment for prior providers who are not part of the network, effects of having a SELECT policy on Medicare benefits, and whether or not an enrollee receives Medicare benefits when using a provider who is not part of the network. The five questions were asked

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Exhib

Standard Medigap Beneficiaries' Awareness of SELECT

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	Total	Alabama	Arizona	Florida	Missouri	Texas	Wisconsin
Heard of SELECT	75.1%	67.5%	78.7%	78.5%	79.3%	69.6%	68.6%
Received Explanation of SELECT	70.6%	56.8%	75.5%	73.3%	70.9%	67.7%	71.4%
Considered Buying SELECT	29.3%	37.6%	30.0%	26.3%	36.8%	26.3%	33.7%

in random order. Respondents were assigned a score of one to six depending on how many questions they answered correctly. A respondent with a score of six gave correct answers for all five questions and a respondent with a score of one gave incorrect answers for all **five** questions. As expected, beneficiaries who had actually purchased a SELECT policy were significantly more knowledgeable about SELECT than beneficiaries who had seriously considered buying a policy but had not done so (Exhibit 5.3).

## **5.2 Personal Characteristics**

Exhibits 5.4 through 5.6 describe the age, race, sex, education, income, and **pre-**retirement occupation of SELECT and comparison group beneficiaries. Exhibit 5.4 also includes data on the age, sex, and racial distribution of the national population of Medicare beneficiaries with individually purchased Medigap insurance, from the 1991 Medicare Current Beneficiary Survey. Compared to the nationwide population of Medicare beneficiaries with individually purchased Medigap plans (in **1991**), SELECT beneficiaries were more likely to be:

- Age 65-69
- Men
- Black or Hispanic

Only in Arizona do the age and sex distributions of the SELECT population closely resemble the nationwide distributions. To some extent, the age distribution of the SELECT population differs from the nationwide population because all SELECT beneficiaries purchased their Medigap plan in 1992 or 1993 and the nationwide population of Medigap purchasers includes persons who purchased their plans at any time. Beneficiaries are most likely to purchase a Medigap policy when they **first** become eligible for Medicare. Thus, new purchasers will naturally be younger on average than the entire population of Medigap policyholders. Because SELECT policyholders are naturally younger, there is greater representation of men, blacks, and hispanics among SELECT policyholders than for Medigap policyholders in general. Another reason why the SELECT age distribution differs from the general Medigap population, and among the SELECT states, is that disabled beneficiaries under age 65 were sampled only in Florida and Missouri.

# Exhibit 5.3

## Knowledge of Medicare SELECT Among SELECT Beneficiaries and Comparison Group Members Who Considered Buying a SELECT Plan

Total SELECT (n = 298)	AL		AZ		FL		MO		TX		WI	
	SELECT (n = 77)	Non- SELECT (n = 44)	SELECT (n = 346)	Non- SELECT (n = 43)	SELECT (n = 669)	Non- SELECT (n = 44)	SELECT (n = 63)	Non- SELECT (n = 75)	SELECT (n = 419)	Non- SELECT (n = 35)	SELECT (n = 451)	Non- SELECT (n = 58)
4.34	4.21	3.34	4.57	3.66	4.54	3.64	4.21	3.62	4.21	3.37	4.43	3.44
0.79	0.87		0.90		0.90		0.59		0.84		1.04	
7.29	4.25		4.43		4.31		3.37		3.70		6.12	
0.0000	0.0000		0.0000		0.0000		0.0008		0.0002		0.0000	

Quis cos:

Men

Difference

t-statistic

p value

Exhibit 5.4

Beneficiaries by Type of Medigap Policy, Age, Gender, and Race

	Total		AL		AZ		FL		MO		TX		WI		Nationwide Medigap Beneficiaries
	SELECT (n = 2825)	Non-SELECT (n = 2354)	SELECT (n = 477)	Non-SELECT (n = 403)	SELECT (n = 346)	Non-SELECT (n = 343)	SELECT (n = 669)	Non-SELECT (n = 390)	SELECT (n = 463)	Non-SELECT (n = 428)	SELECT (n = 419)	Non-SELECT (n = 393)	SELECT (n = 451)	Non-SELECT (n = 397)	
<b>AGE</b>															
<65	0.55%	0.66%	0.00%	0.00%	0.00%	0.00%	1.13%	0.05%	1.33%	4.33%	0.00%	0.00%	0.00%	0.00%	2.6%
65-69	36.11%	35.28%	12.35%	44.55%	26.70%	27.28%	33.81%	31.24%	33.82%	37.34%	30.77%	35.38%	14.24%	51.74%	22.0%
70-74	28.24%	26.53%	16.64%	26.13%	24.47%	23.93%	27.48%	26.03%	28.78%	26.12%	32.10%	27.91%	14.46%	28.45%	28.9%
75-79	17.77%	17.60%	17.80%	16.17%	22.78%	21.37%	18.25%	18.97%	17.92%	16.92%	18.25%	17.22%	11.14%	10.32%	21.4%
80-84	11.61%	13.72%	8.68%	9.09%	16.25%	18.35%	13.35%	16.86%	12.47%	9.56%	12.20%	13.88%	6.86%	3.83%	15.3%
85+	5.72%	6.21%	4.53%	4.06%	9.80%	9.07%	5.99%	6.86%	5.67%	5.72%	6.68%	5.61%	3.30%	5.66%	9.9%
<b>GENDER</b>															
Male	42.12%	42.92%	43.09%	42.31%	38.05%	37.10%	43.61%	46.02%	40.06%	41.14%	41.61%	38.92%	40.22%	43.65%	37.1%
Female	57.88%	57.08%	56.91%	57.70%	61.95%	62.90%	56.39%	53.98%	59.94%	58.86%	58.39%	61.08%	59.78%	56.35%	62.9%
<b>RACE</b>															
White, non-Hispanic	86.51%	95.14%	80.04%	91.86%	96.03%	97.54%	94.64%	95.48%	86.09%	95.49%	76.81%	94.29%	88.49%	97.39%	92.4%
Black, non-Hispanic	7.22%	2.26%	17.04%	7.20%	1.27%	0.30%	2.22%	1.48%	12.60%	2.99%	4.14%	2.04%	0.00%	1.80%	3.9%
Hispanic	6.10%	2.52%	2.92%	0.93%	2.26%	1.91%	2.68%	3.04%	1.31%	1.04%	19.05%	3.67%	1.51%	0.82%	2.8%
other	0.16%	0.08%	0.00%	0.00%	0.45%	0.25%	0.47%	0.00%	0.00%	0.49%	0.00%	0.00%	0.00%	0.00%	0.8%

• Medicare Beneficiaries with Individually Purchased Medigap Insurance, Nationwide -- Source: Medicare Current Beneficiary Survey, 1991. Includes HMO enrollees.

# Exhibit 5.5

## Beneficiaries by Type of Medicaid Policy, Education, and Income

	Total		AL		AZ		FL		MO		TX		WI	
	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT
	(n = 2825)	(n = 2354)	(n = 477)	(n = 403)	(n = 346)	(n = 343)	(n = 669)	(n = 390)	(n = 463)	(n = 428)	(n = 419)	(n = 393)	(n = 451)	(n = 397)
<b>EDUCATION</b>														
No school	0.44%	0.03%	0.07%	0.26%	0.00%	0.00%	0.0%	0.00%	0.41%	0.05%	1.68%	0.00%	0.00%	0.00%
Elementary school	17.15%	8.73%	24.30%	11.15%	5.73%	6.22%	9.4%	7.4 9%	16.92%	9.02%	23.06%	10.02%	18.12%	10.94%
High school	54.21%	46.24%	57.90%	45.45%	44.57%	40.82%	53.94%	47.7 6%	53.99%	44.18%	51.85%	45.03%	56.47%	49.14%
College	28.19%	45.00%	17.80%	43.14%	49.70%	52.96%	37.00%	44.76%	28.68%	46.75%	23.41%	44.95%	25.41%	39.92%
<b>INCOME</b>														
Less than \$9,999	21.50%	14.46%	30.46%	15.00%	14.56%	9.62%	15.3%	15.1 %	17.53%	15.00%	26.43%	14.57%	14.61%	10.74%
\$10,000 - \$19,999	5.07%	11.05%	18.71%	14.56%	7.90%	10.05%	13.45%	9.2 1%	14.60%	12.24%	14.87%	12.66%	15.85%	11.83%
\$20,000 - \$29,999	16.63%	13.72%	14.96%	13.65%	12.82%	11.77%	16.39%	13.89%	18.14%	14.99%	17.70%	12.68%	18.03%	16.54%
\$30,000 - \$39,999	20.49%	20.11%	17.92%	24.33%	20.72%	27.37%	21.08%	19.78%	19.65%	17.25%	20.66%	19.26%	27.25%	22.01%
\$40,000 - \$49,999	20.25%	25.79%	14.59%	22.53%	25.17%	25.16%	25.42%	24.6 6%	22.97%	25.92%	16.04%	28.80%	20.12%	25.71%
More than \$50,000	6.06%	14.88%	3.35%	9.93%	18.84%	16.04%	7.83%	17.09%	7.10%	15.51%	4.30%	12.04%	4.16%	13.17%

Exhib 5.6

Beneficiaries by Type of Medigap Policy  
and Pre-retirement Occupation

	Total	SELECT	Non-SELECT
Pre-retirement Occupation	n = 5179)	(n = 2825)	(n = 2354)
Homemaker	13.1%	13.0%	13.2%
Service Worker	10.8%	13.3%	7.4%
Skilled Trade/Craft	10.9%	12.3%	8.9%
Office/Clerical Worker	11.6%	10.8%	12.6%
Manager	17.7%	15.7%	20.4%
Professional/Technical	13.5%	11.0%	17.0%
Other Occupations	22.5%	24.0%	20.4%

The **SELECT** and comparison **samples were** matched on. age and sex (as well as location of residence). Thus, by design, there are no differences **in** age and sex. However, we did not match on race, education, or income, so any differences observed between the **SELECT** and comparison **groups** are meaningful. Relative to the comparison group, **SELECT** beneficiaries were more likely to:

- be black,
- be Hispanic,
- have an elementary **or** high school education only, and
- have low income.

In all **states** except Arizona, **SELECT** beneficiaries were more likely to have only an elementary school education and less likely to have attended college than members of the comparison group. Similarly, they were **more likely** to have low incomes and less **likely** to have high incomes than the comparison group; however, the differences are not as great as for education and there is more variation among the states.

Survey respondents were questioned about their pre-retirement occupation for the last 10 years that they worked.. Results are shown in Exhibit **5.6**. **SELECT** beneficiaries were more likely to be **retired** service workers **and** skilled trade/craftsmen while comparison group respondents were more likely to **have** management and professional/technical positions, which is consistent with the findings for education.

### 5.3 **Health Status**

Four measures of health and functional status were obtained in the survey: perceived **general** health status, a list of **chronic** conditions., the number of restricted activity days, and the seven questions about activities of **daily living (ADL) and** instrumental activities of daily living (**IADL**). Exhibit 5.7 compares the distributions of the **SELECT** population to the comparison group on the **5-point** (excellent to poor) scale of the perceived general health status question. There: were no significant differences between the two groups in any of the six states.

The survey asked **beneficiaries** to indicate the presence or absence of 18 chronic conditions or **health** problems. We **summarized** the: data. by **totaling** the number of conditions reported by each respondent, computing the mean number of **conditions for** beneficiaries in



each of the SELECT and comparison groups and testing for differences in the means. As indicated in Exhibit 5.8, we found a **significant** difference only in Florida, where SELECT beneficiaries reported fewer conditions than the **comparison** group. There was no difference in any state in the: mean number of restricted activity days reported by beneficiaries (Exhibit 5.8)

The seven ADL and **IADL** questions covered difficulty shopping, handling money, using the telephone, keeping house or doing light: **maintenance work**, dressing and undressing, getting out of bed, and. bathing. Each question used a 4-point scale ranging from no difficulty to being unable to do it without assistance. Based on factor analysis of the seven items, we computed a single measure for each respondent **comprised** of the sum. of the values **(1–4)** for the 7 items giving a possible range of 7-28, with **higher** numbers **representing** greater impairment. **We** tested for differences between the SELECT and comparison groups in the means of these values in each state and found significant differences in Alabama and Arizona. In both cases the SELECT groups had greater impairment than the comparison groups.

Given the large number of statistical tests reported for **health** status measures in Exhibits 5.7 and 5.8, one or two significant differences would be expected by chance, which is essentially what we found. Thus, **in** the six survey states, we observed no difference in health status among the persons who chose SELECT and. those who purchased non-network standard **Medigap** policies

#### 5.4 **Knowledge of the Medicare Program**

All survey respondents were asked **a** series of four questions about Medicare to assess their knowledge. The quiz **included** questions about whether Medicare covers any of the costs of eye glasses or eye examinations, **whether** Medicare pays all charges for visits to a doctor's office, whether or not there is a deductible for each hospital stay **with** Medicare and whether Medicare covers any of the cost of prescription drugs. The four questions were asked in random order. Respondents were assigned a score of one to five **depending** on how many questions they answered correctly. A **respondent** with a score of five gave **correct** answers for **all** four questions and a respondent with a **score** of **one** gave incorrect answers for all four questions. The mean scores in Exhibit 5.9 indicate that there **were** no **significant** differences in knowledge of the Medicare program between SELECT and comparison group beneficiaries in any of the states.

## Exhibit 5.8

### Difference Between SELECT and Comparison Group in Health Status Measures

	Total	AL	AZ	FL	MO	TX	WI
	(n = 5179)	(n = 880)	(n = 689)	(n = 1059)	(n = 891)	(n = 812)	(n = 848)
Mean Number of Chronic Conditions							
Difference	-0.03	0.19	0.21	-0.30	0.11	-0.01	0.07
t-statistic	<b>-0.37</b>	1.39	1.35	-2.24	0.80	-0.10	0.63
p-value	0.7096	0.1659	0.1767	0.0253	0.4230	0.9221	0.5319
Mean Number of Restricted Activity Days							
Difference	-0.09	0.31	-0.09	-0.47	0.19	-0.05	0.30
t-statistic	-0.38	0.67	-0.16	-1.01	0.42	-0.11	0.75
p-value	0.7012	0.5050	0.8713	0.3123	0.6775	0.9122	0.4513
ADL Scale	(n = 5137)	(n = 870)	(n = 687)	(n = 1046)	(n = 887)	(n = 805)	(n = 842)
Difference	-0.03	0.58	0.74	-0.35	-0.07	0.04	-0.13
t-statistic	-0.25	2.65	2.63	-1.56	-0.29	0.14	-0.70
p-value	0.8011	0.0080	0.0085	0.1189	0.7715	0.8870	0.4869

# Exhibit 5.9

## Medicare Knowledge: Differences in Mean Scores Score Range = 1 to 5

Quiz Scores:

Total		AL		AZ		FL		MO		TX		WI	
SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT
(n = 2825)	(n = 2354)	(n = 477)	(n = 403)	(n = 346)	(n = 343)	(n = 669)	(n = 390)	(n = 463)	(n = 428)	(n = 419)	(n = 393)	(n = 451)	(n = 397)
3.87	3.87	3.82	3.90	3.90	3.94	3.86	3.82	3.94	3.89	3.86	3.89	3.90	3.98
0.00		- 0.07		- 0.04		0.05		0.05		- 0.03		- 0.09	
0.13		- 1.18		- 0.33		0.78		0.84		- 0.44		- 1.40	
0.8978		0.2364		0.5793		0.4366		0.3992		0.6598		0.1603	

## 5.5 Reasons for Purchasing **SELECT**

One-quarter to one-third of respondents in the **SELECT** and comparison groups across all states did not know why they chose their current Medigap policy (Exhibit 5.10). The most salient factor for persons who **chose a** **SELECT** plan was the cost of premiums. For persons who chose a non-network policy, it was freedom of choice. Cost of premiums was the most salient factor among **SELECT** beneficiaries in all income groups (Exhibit 5.11). Recommendation of family and friends was routinely less important for the **SELECT** beneficiaries than for the comparison group. Paperwork, which is often minimized when joining a managed care plan, was not an important factor except in Wisconsin, where only **HMOs** offered **SELECT**.

The importance of cost for **SELECT** beneficiaries is reflected in data on changes in Medigap premiums. Among **SELECT** beneficiaries who had a previous Medigap policy, between one-quarter and one-half reported that their **SELECT** premium was a lot less expensive than their previous Medigap premium (Exhibit 5.12).

We also obtained descriptive data about the previous Medigap policies of beneficiaries who had switched to a **SELECT** policy (Exhibit 5.13). Over all the states, about 13 percent of these beneficiaries obtained their **SELECT** policy from the same insurer they used before. About 30 percent had switched from a previous network arrangement. The levels of dissatisfaction -with those previous plans was quite high compared to the usual distribution observed for health plan satisfaction. Among all the states combined, about 25 percent of beneficiaries were either unsatisfied or very unsatisfied. In Wisconsin, 42 percent of **SELECT** beneficiaries with a previous Medigap policy were unsatisfied or very unsatisfied with it. The high rate of dissatisfaction is not surprising because these are people who have switched Medigap plans.

## 5.6 Satisfaction with **SELECT**

In each state, about 60-65 percent of **SELECT** and comparison beneficiaries reported that they were very satisfied with their current Medicare supplements and another **30–35** percent said they were satisfied (Exhibit 5.14). There was no difference in satisfaction between **SELECT** and comparison group beneficiaries in any state except Wisconsin. In Wisconsin, 82 percent reported that they were very satisfied compared to 64 percent of the comparison group.

## Exhibit 5. 10

### Main Reason for Choosing A Network or Non-Network Medigap Policy

[illegible]

## Appendix A: Sampling Weight Methods for the Beneficiary Survey

The sampling frames and sample sizes, for the SELECT and non-network enrollees in each state are given in Exhibit A.1. The statistical criterion for estimating the sample size was based on the ability to detect a difference of approximately 7.5% for a percentage around 50 percent for a one-sided test of significance level of 0.05 and statistical power of 0.80. In addition, we assumed a response rate of 80 percent for both populations. The sample sizes given in Exhibit A. 1 show the sample allocation for the 6 states and the expected detectable difference.

**Exhibit A.1**  
**Sampling Frames and Sample Sizes for SELECT and Non-network Enrollees**

		Sampling Frame		Sample Allocation <sup>1</sup>		Expected Detectable Differences*
		SELECT Enrollees	Non-network Enrollees	SELECT Enrollees	Non-network Enrollees	
Alabama	65+	8,179	2,157	963	625	7.1%
Arizona	65+	1,144	1,144	750	625	7.5%
Florida	65+	12,250	12,113	1,442	660	6.5%
	<65	190	65	190	65	19.9%
Missouri	65+	4,597	3,778	750	625	7.5%
	<65	75	210	75	150	19.6%
Texas	65+	8,329	5,654	980	625	7.1%
Wisconsin	65+	2,275	1,694	750	625	7.5%
<b>Total</b>	<b>All</b>	<b>37,039</b>	26,815	5,900	4,000	3.5%
	65+	36,774	26,540	5,635	3,785	3.6%
	<65	265	275	265	215	

<sup>1</sup> Assumed an 80 percent response rate.

<sup>2</sup> Expected detectable difference between percentage estimates for SELECT and non-network enrollees around 0.50 for a one-sided test of significance at  $\alpha = 0.05$  and statistical power of 80 percent.

The sampling weight for each beneficiary is the inverse of the selection probability, and the selection probability for this sampling design is the ratio of the sample size to the number of



beneficiaries in each sampling stratum. The sum of the sampling weights for each population is the total count for the population.

### **Adjustment for Nonresponse**

All sample surveys are subject to nonresponse (i.e., persons who refuse, are unable to respond, or cannot be contacted during the survey period). For the beneficiary survey, two levels of nonresponse exist for the SELECT beneficiaries: (1) nonresponse to the telephone interview; and (2) response to the telephone interview, but the respondent did not know that he/she was in SELECT (i.e., some of the SELECT beneficiaries did not know that they were in SELECT when asked during the telephone interview). These cases were considered as **non-**respondents for a portion of the analyses. For the non-network beneficiaries, only nonresponse to the telephone interview existed. A summary of the response rates is shown in Exhibit A.2.

To reduce the potential for nonresponse, the standard practice is to adjust the sampling weights of the respondents to compensate for the non-respondents. The potential for bias can be reduced if respondents and non-respondents with similar propensity to respond can be grouped into classes. The weights of the respondents are inflated to compensate for the non-respondents in that class by multiplying the respondent's sampling weight by the inverse of the propensity to respond in that class. For beneficiaries under 65, we computed a simple ratio-type adjustment to account for nonresponse. For beneficiaries 65 or older, we used a more sophisticated procedure based on response propensity modeling.

In a more comprehensive multivariate sense, the propensity to respond can be modeled using logistic regression (Little, 1986) or a logistic raking/calibration algorithm (Folsom, 1991; Iannacchione et al., 1991; Deville and **Sarndal**, 1992). Response propensity modeling using weighted logistic regression utilizes data available on both respondents and non-respondents to predict the probability of response for each sample member. The sampling weights are used for estimating model **coefficients** so population-level estimates are achieved for the predicted response propensity. This predicted response probability was then used as nonresponse adjustment factors for individual cases.

**Exhibit A.2**  
**Summary of Response Rates from SELECT and non-network Beneficiaries**

		SELECT Beneficiaries					Non-network Enrollees		
		Sample	Telephone Response <sup>1</sup>		SELECT Response <sup>2</sup>		Sample	Telephone Response <sup>1</sup>	
		Count	Count	%	Count	%	Count	Count	%
Alabama	65+	963	708	73.5	587	61.0	625	489	78.2
Arizona	65+	750	501	66.8	422	56.3	625	431	69.0
Florida	65+	1,442	985	68.3	831	57.6	660	442	67.0
	<65	190	128	67.4	96	50.5	65	45	69.2
Missouri	65+	750	585	78.0	447	59.6	625	411	65.7
	<65	75	56	74.7	45	60.0	150	120	80.0
Texas	65+	980	679	69.3	517	52.8	625	462	73.9
Wisconsin	65+	750	589	78.6	518	69.1	625	479	76.7
Total	All	5,900	4,231	72.0	3,463	58.7	4,000	2,879	72.0
	65+	5,635	4,047	71.7	3,322	59.0	3,785	2,714	71.7
	<65	265	184	76.7	141	53.2	215	165	76.7

<sup>1</sup> Telephone Response: response to telephone interview

<sup>2</sup> SELECT Response: response to telephone interview and knew that he/she was in SELECT.

Weighted logistic regression for response propensity modeling is motivated by natural limits for the predicted value, the interval **0 to 1**. Logistic regression has also been shown to provide more accurate probability estimates than linear discriminant analysis when the assumptions for linear discriminant analysis are violated (Press and Wilson, 1978).

For the response propensity modeling, we **first** used linear regression in a **stepwise** fashion to identify the variables for modeling. We included demographic data on the beneficiary (e.g., age, race, and gender) and contextual data on the geographic area in which **the** beneficiary resides that may be related to the beneficiaries likelihood or ability to response. These contextual variables included the age-specific mortality rates for the area (using 4 age categories: **55–64, 65–74, 75–84**, and 85 or older), the availability of health services (measured by number of doctors, hospital beds, and nursing home beds per 1,000 persons), and income measures (e.g., the median family income and the percent of families and persons with incomes less than the poverty level). These contextual data were obtained from **the** 1994 Area Resource File. Once a list of candidate variables was identified for each sample, the significance of parameters in the model were evaluated by design-based sampling variance estimates of the parameter coefficients (computed using **RTI's** SUDAAN software, Shah et al., 1995).

A major concern in using the predicted response propensity values as adjustment factors is that the variation in the adjustment factors may introduce greater variation in the weights and reduce precision (Little, 1986). A recent approach to nonresponse adjustments has been developed in the form of a generalized raking approach using the logistic model (Folsom, 1991). This procedure incorporates an enhancement that permits one to set an arbitrary upper limit on the inverse response propensity weight adjustment multipliers (**Deville and Sarndal**, 1992). This allows one to mediate the variance inflating effects of extreme adjustments while still satisfying all the raking/calibration constraints. Following Deville and **Sarndal**, this algorithm also provides for the imposition of upper and lower bounds on the unit level adjustment multipliers. These bounds can be set after examining the distribution of adjustment values resulting from an unconstrained raking solution. Setting these bounds to eliminate extremely small and large adjustments mediates the associated variance inflation effects.

A separate logistic response propensity model was developed for each plan type in each state (except for the samples with beneficiaries under 65) and for the two types of response for

SELECT beneficiaries. In each model, we **included** age and **gender** (because these were the primary stratification factors).

For the SELECT beneficiaries, more **factors** were predictive of response than for the non-network beneficiaries. For response to the telephone interview among SELECT beneficiaries, Florida and Texas had the most factors related to the response propensity, and Alabama had no factors related to response. **For** both Florida and Texas, the availability of health **services** (measured by doctors per **1,000** persons), income: measures (percentage of families living in poverty), and one or more age-specific mortality rates were significantly associated with response. For four **states** (Arizona, **Florida, Missouri**, and Texas), one or more of the age-specific mortality rates was significantly associated with response. Income measures were **significantly** associated with response in three states (Missouri, Florida, and Texas). Age and gender were each **significant** in two states (Arizona and Wisconsin, and Missouri and Texas, respectively).

For SELECT beneficiaries who responded but **did** not know that they were in **SELECT**, response was significantly associated with fewer factors' for all states, except Florida. In Florida, response was associated again with the availability of health services (doctors per **1,000** persons), **income** (percentage of families living **in** poverty), and the age-specific mortality rates. For the non-network Medicare beneficiaries, fewer factors were **also** associated with response. In three states (Alabama, Florida, **and** Texas), response was significantly associated with the availability of health **services** as measured by the number of doctors per 1,000 persons. One or more mortality rates and age were significantly associated with response only in **Alabama** and Florida.

The **nonresponse-adjusted** weights were checked for extreme values and limits were imposed in the response propensity modeling procedure to avoid inflation of the sampling variances. In general, only a few weights were **trimmed** in any state and plan type combination.

Exhibit 5.11

Main Reason for Choosing a SELECT Policy  
by Income

Reason for Choosing SELECT:	Income:						
	Total (n = 2028)	<\$6,001 (n = 402)	\$6,001- \$8,000 (n = 293)	\$8,001- \$10,000 (n = 335)	\$10,001 \$14,000 (n = 430)	\$14,001- \$26,000 (n = 424)	>\$26,000 (n = 144)
Recommendation of Friends or Family	6.2%	7.5%	5.9%	5.3%	7.0%	6.0%	3.1%
Recommendation of Sales Agent	2.4%	2.5%	2.6%	2.7%	2.1%	2.5%	1.3%
Paperwork	2.7%	1.0%	0.9%	2.2%	3.4%	5.2%	3.6%
Cost of Premiums	45.0%	47.2%	46.8%	49.0%	43.5%	42.3%	36.5%
Location of Network Providers	5.5%	4.5%	5.1%	3.5%	6.4%	6.5%	9.2%
Quality of Care in Network	9.0%	8.0%	9.4%	7.2%	8.9%	10.1%	13.1%
Offered Specific Additional Benefit	1.3%	0.5%	1.9%	0.6%	1.5%	2.6%	0.4%
Not Aware of Other Policies	2.8%	5.1%	3.8%	2.7%	1.4%	0.9%	3.2%
Don't Know	25.0%	23.6%	23.7%	26.8%	25.8%	24.0%	29.7%
TOTAL	100%	100%	100%	100%	100%	100%	100%

Exhibit 5.1.2

Perceived Changes in Costs Among Beneficiaries  
With Prior Medi gap

	Total (n = 783)	CA (n = 133)	AZ n = 95)	FL (n = 167)	MO (n = 178)	TX (n = 130)	WI (n = 80)
Perceived Changes in Medi gap Premiums Cost Compared to Pre-SELECT Medi gap Among Those with Prior Medi gap							
a lot more expensive	11.2%	7.3%	14.3%	17.3%	8.1%	7.4%	22.3%
somewhat more expensive	10.7%	7.3%	18.8%	15.8%	5.9%	9.5%	17.2%
about the same	14.5%	20.7%	8.2%	10.4%	6.8%	21.3%	15.1%
somewhat less expensive	24.7%	29.6%	23.5%	22.2%	24.9%	25.0%	16.8%
a lot less expensive	38.9%	35.1%	35.3%	34.3%	54.3%	36.7%	28.6%

Exhibit 5.13

Comparison of SELECT to Prior Medigap Plan

	Total (n = 721)	(n = 24)	AZ (n = 85)	FL (n = 151)	MO (n = 164)	TX (n = 129)	WI (n = 68)
Prior Medigap Plan was From SELECT Insurer	12.6%	7.3%	15.7%	23.0%	8.4%	8.8%	11.0%
Prior Medigap Plan Used a Provider Network	(n = 691) 29.8%	(n = 119) 40.4%	(n = 84) 16.6%	(n = 141) 26.0%	(n = 157) 15.2%	(n = 122) 41.3%	(n = 68) 11.5%
Satisfaction with Prior Medigap Plan	(n = 698)	(n = 122)	(n = 84)	(n = 148)	(n = 156)	(n = 123)	(n = 65)
very satisfied	31.6%	37.1%	33.6%	28.5%	37.9%	26.6%	23.5%
satisfied	43.0%	45.3%	41.1%	44.5%	39.2%	43.8%	34.2%
unsatisfied	18.5%	13.1%	17.5%	16.8%	18.6%	22.5%	33.1%
very unsatisfied	7.0%	4.5%	7.7%	10.2%	4.4%	7.2%	9.2%

Exhibit 5.14

Satisfaction with Medicare Supplement by Type of Plan and State

	Total	AL	AZ	FL	MO	TX	WI
<b>SELECT</b>							
Very Satisfied	65.4%	63.7%	67.1%	64.5%	65.3%	63.1%	82.3%
Satisfied	30.8%	33.0%	28.7%	31.3%	29.2%	33.6%	16.7%
Unsatisfied	2.8%	2.1%	2.1%	3.2%	4.6%	2.3%	1.0%
Very Unsatisfied	1.0%	1.1%	2.1%	1.0%	0.9%	1.0%	0.0%
<b>Non-SELECT</b>							
Very Satisfied	65.0%	63.0%	69.6%	66.0%	61.4%	66.1%	63.5%
Satisfied	32.3%	34.1%	28.3%	31.5%	34.4%	32.3%	33.5%
Unsatisfied	2.3%	2.6%	2.0%	2.1%	3.9%	1.4%	2.7%
Very Unsatisfied	0.3%	0.2%	0.0%	0.4%	0.3%	0.3%	0.3%
$\chi^2$	6.6311	2.7634	5.9897	2.3987	3.1162	2.3960	36.4693
p-value	0.0847	0.4296	0.1122	0.4939	0.3741	0.4944	0.0000
d.f.	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000

However, when very satisfied and satisfied responses are combined, there is little difference between SELECT and comparison **beneficiaries** in Wisconsin. Thus, the difference concerns the percentage who were very satisfied. At the time we obtained enrollment data from insurers, all SELECT insurers in Wisconsin were **HMOs**. These **HMOs** mainly market SELECT to the retiring workers of their employment-based group clients. Thus, beneficiaries who purchased their Medigap coverage from these **HMOs** are likely to be those who were very satisfied with the same HMO before they retired.

We also assessed satisfaction by asking SELECT beneficiaries about their satisfaction with the number and quality of network providers and about complaints and grievances. Exhibits 5.15 through 5.17 present the satisfaction distributions for primary care physicians, specialists, and hospitals, respectively. Beneficiaries were asked about satisfaction with each type of provider only after indicating that they were subject to network restrictions for that type. Thus, persons who were subject to network restrictions but did not understand that they were are not reflected in these data.

In some cases, beneficiaries who were not subject to a formal network restriction for a particular type of provider responded that they were and, therefore, provided data about their satisfaction with the number and quality of those providers. They may have answered in this way because they do not understand their network restrictions and obligations or because they correctly perceive a *de facto* network restriction. For example, a substantial number of respondents in Missouri and Texas reported that they are subject to network restrictions for primary care physicians (Exhibit 5.15). Yet none of the Missouri and Texas insurers in our sampling frame use physician networks. This response could reflect beneficiaries' **misunderstanding** about the kind of network choices they face or it could reflect a sophisticated understanding that the physicians with privileges at network hospitals constitute a *de facto* physician network that should be used for ambulatory care if beneficiaries expect to receive inpatient hospital care from their usual physicians.

If we focus on the percentage of beneficiaries reporting dissatisfaction with the number or quality of providers as the key indicator of a problem, we **find** no consistent patterns among types of providers or states. The percentage reporting that they were unsatisfied or very unsatisfied ranges from 1.6 percent for the quality of specialists in Alabama to 11.3 percent for

# Exhibit 5.15

## Satisfaction of SELECT Beneficiaries with Primary Care Physicians (PCPs)

	Total	AL	AZ	FL	MO	TX	WI
Number of PCPs Available	(n = 1543)	n = 233	(n = 210)	n = 440	(n = 179)	(n = 28)	(n = 353)
Very Satisfied	55.8%	55.6%	62.3%	55.2%	54.0%	47.5%	68.8%
Satisfied	32.5%	37.1%	24.3%	31.3%	36.6%	32.6%	26.5%
Unsatisfied	5.1%	1.0%	2.7%	7.7%	2.2%	9.0%	1.6%
Very Unsatisfied	1.3%	1.3%	3.3%	1.1%	1.3%	2.3%	0.6%
Have Not Used/No opinion	5.3%	5.0%	7.1%	4.9%	5.9%	8.6%	2.6%
Quality of PCPs	(n = 1551)	(n = 231)	(n = 214)	(n = 439)	(n = 181)	(n = 131)	(n = 355)
Very Satisfied	57.1%	59.2%	59.5%	58%	56.4%	41.2%	68.9%
Satisfied	30.9%	32.1%	20.9%	25%	33.6%	42.1%	26.4%
Unsatisfied	3.9%	1.8%	4.0%	.5%	2.5%	4.6%	1.1%
Very Unsatisfied	0.6%	0.0%	2.3%	0.3%	0.5%	1.4%	0.8%
Have Not Used/No opinion	8.4%	6.8%	13.3%	9.8%	7.0%	10.7%	2.9%

Exhibit 5.16

Satisfaction of SELECT Beneficiaries with Specialists

	Total	AL	AZ	FL	MO	TX	WI
Number of Specialists Available	(n= 1118)	(n = 159)	(n = 173)	(n = 358)	(n = 100)	(n = 72)	(n = 256)
Very Satisfied	48.9%	46.1%	49.8%	49.7%	45.0%	48.7%	53.0%
Satisfied	28.7%	33.6%	25.6%	26.5%	23.1%	32.3%	31.8%
Unsatisfied	4.5%	2.4%	3.7%	6.0%	4.4%	4.0%	2.6%
Very Unsatisfied	1.0%	1.8%	1.7%	1.2%	0.0%	0.0%	0.3%
Have Not Used/No opinion	16.9%	16.1%	19.3%	16.6%	27.5%	15.0%	12.3%
Quality of Specialists	(n= 1113)	(n = 159)	(n = 173)	(n = 352)	(n = 101)	(n = 73)	(n = 255)
Very Satisfied	49.8%	42.4%	55.9%	51.0%	40.8%	54.3%	58.0%
Satisfied	23.5%	30.0%	17.7%	21.6%	25.7%	22.7%	22.2%
Unsatisfied	2.1%	1.6%	2.3%	2.4%	2.0%	1.2%	2.3%
Very Unsatisfied	0.6%	0.0%	1.2%	0.9%	0.0%	0.0%	1.2%
Have Not Used/No opinion	24.0%	26.0%	22.8%	24.1%	31.6%	21.8%	16.3%

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	Total	AL	AZ	FL	MO	TX	WI
Number of Hospitals	(n = 2143)	(n = 388)	(n = 250)	(n = 513)	(n = 379)	(n = 304)	(n = 329)
Very Satisfied	51.7%	50.7%	50.2%	52.1%	57.7%	46.0%	57.6%
Satisfied	34.1%	36.9%	29.8%	30.7%	33.0%	37.8%	33.4%
Unsatisfied	6.2%	5.7%	7.8%	7.8%	4.6%	6.1%	3.8%
Very Unsatisfied	1.9%	1.8%	2.8%	1.9%	0.8%	2.9%	0.8%
Have Not Used/No opinion	6.2%	4.9%	9.4%	7.5%	3.8%	7.2%	4.4%
Quality of Hospitals	(n = 2144)	(n = 370)	(n = 248)	(n = 512)	(n = 372)	(n = 306)	(n = 336)
Very Satisfied	57.3%	61.3%	57.3%	55.5%	58.7%	52.4%	65.6%
Satisfied	27.2%	25.9%	24.4%	24.6%	29.8%	31.0%	26.3%
Unsatisfied	2.7%	3.0%	2.1%	4.4%	1.1%	1.6%	1.5%
Very Unsatisfied	0.9%	1.4%	0.7%	0.1%	0.6%	0.7%	0.2%
Have Not Used/No opinion	12.1%	8.4%	15.5%	15.4%	9.8%	14.3%	6.3%

the number of primary care physicians in Texas. Beneficiaries were generally less willing or able to express an opinion about the quality of providers than about their number.

Finally, few beneficiaries reported **that they** had filed a formal complaint or grievance about their Medigap policy or the care they received from their network providers. Because the **number** is so few, the estimates in Exhibit 5.18 are provided for all states combined instead of by state. About 2 percent of beneficiaries in the six survey states filed complaints and 80 percent of those were with the insurer. Three-fourths of them concerned billing problems and about half were resolved to the beneficiary's satisfaction.

### 5.7 Out-of-Network Use

SELECT beneficiaries were asked if they used primary care doctors, specialists, or hospitals that were not part of their insurers' provider networks and, if so, whether or not the insurer paid the bill (Exhibit 5.19). Because the beneficiary may not be aware of authorizations made by providers, these results include both authorized and unauthorized out-of-network use. The percentage of beneficiaries who used non-network providers was similar for all types of providers and among the states, ranging from about 10 to 20 percent. Overall, insurers paid out-of-network physician claims about half the time, ranging from a low of 30 percent for primary care physicians in Florida to 96 percent for specialists in Missouri. However, some of these estimates (e.g., specialists in Alabama, Missouri, and Texas) are based on very few observations, have very large variances, and should be viewed very cautiously. It is interesting that insurers were more likely to pay out-of-network hospital claims than physician claims. This may indicate that out-of-network hospital use is authorized more often than out-of-network physician use (e.g., because of emergencies) or that insurers are more likely to reimburse unauthorized care when the financial penalties for the beneficiary are more severe.

The most common reasons for out-of-network physician use were the desire to use a previous primary care doctor, which suggests unauthorized out-of-network use, and a referral by a network physician to a specialist, which indicates an authorized out-of-network visit (Exhibit 5.20). Emergencies were by far the most common reason for out-of-network hospital use, but they also accounted for a substantial portion of out-of-network physician use.

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**Exhibit 5.18**  
**Complaints Filed by SELECT Beneficiaries**

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Beneficiaries Filing Complaints	(n = 2990)
	1.73%

Complained to:	(n = 58)
Insurer	80%
Dept. of Insurance	10%
Medical Facility	10%

Subject of Complaint	(n = 56)
Poor Medical Care	12%
Billing	74%
Customer Service	14%

Satisfaction with Handling of Complaint	(n = 57)
Satisfied	46%
Dissatisfied	54%

Exhibit 5.19

Frequency of Out-of-Network Use and Consequences

	Total	AL	AZ	FL	MO	TX	WI
<b><u>Primary Care Physician (PCP)</u></b>							
Used PCP not on list	(n = 1565) 17.2%	(n = 232) 13.7%	(n = 216) 18.2%	(n = 445) 20.0%	(n = 182) 13.2%	(n = 134) 16.4%	(n = 356) 17.2%
Bill Paid for Out-of-Network Use of PCP	(n = 250) 47.1%	(n = 28) 63.1%	(n = 36) 53.2%	(n = 85) 29.7%	(n = 22) 76.6%	(n = 20) 51.5%	(n = 59) 73.5%
<b><u>Specialists</u></b>							
Used specialist not on list	(n = 1148) 13.6%	(n = 162) 10.0%	(n = 179) 23.3%	(n = 369) 16.3%	(n = 104) 4.9%	(n = 76) 13.8%	(n = 258) 10.3%
Bill Paid for Out-of-Network Use of Specialists	(n = 157) 49.5%	(n = 16) 80.2%	(n = 39) 53.3%	(n = 59) 34.7%	(n = 7) 95.9%	(n = 11) 46.5%	(n = 25) 82.9%
<b><u>Hospitals</u></b>							
Used hospital not on list	(n = 2183) 12.5%	(n = 374) 9.7%	(n = 259) 14.8%	(n = 520) 12.3%	(n = 382) 8.0%	(n = 313) 19.4%	(n = 335) 9.1%
Bill Paid for Out-of-Network Use of Hospitals	(n = 260) 71.0%	(n = 35) 74.9%	(n = 38) 87.7%	(n = 68) 69.0%	(n = 31) 55.4%	(n = 59) 71.2%	(n = 29) 89.0%

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## Exhibit 5.20

### Reasons for Using Out-of-Network Providers \*

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	PCPs (n=269)	Specialists (n=161)	Hospitals (n=269)
Network physician referral	16.3%	35.8%	17.0%
Non-network physician referral	1.4%	2.4%	5.8%
Emergency	17.9%	12.3%	44.7%
Services not available through network	5.6%	7.6%	9.7%
Wanted to see previous doctor	32.5%	25.8%	5.4%
Thought quality of care better	8.2%	14.9%	3.0%
Location	7.1%	1.8%	9.8%
Seen sooner	1.8%	1.3%	0.0%
Confusion	6.7%	1.1%	5.4%
Second opinion	0.6%	0.2%	0.6%

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\* Categories are not mutually exclusive; multiple responses were permitted.

## 5.8 Multivariate Analysis of SELECT Participation

The preceding sections of Chapter 5 have presented descriptive statistics on the SELECT population in six states and compared them to a matched group of persons with non-network, standard Medigap policies to explain who buys SELECT policies, why they buy them, and how they feel about their choice. These comparisons between SELECT and standard Medigap policyholders control for age, sex, and area of residence because the comparison group was matched to the SELECT group on these dimensions. However, other factors included in the preceding tables are likely correlated **with** each other. Therefore, the **final** section of Chapter 5 uses multivariate logistic regression models to identify the independent effects of these factors in distinguishing between purchasers of SELECT and non-network standard Medigap policies.

Through this point in the Chapter, we have presented descriptive statistics for aged and disabled beneficiaries combined in Florida and Missouri, the only two states in which disabled beneficiaries (i.e., those under age 65) were sampled. However, we decided to model the purchase choice separately for the two populations because their insurance decisions may be based on very different considerations. We present the model for beneficiaries aged 65 and older, but the estimates from a separate model for the population under age 65 were unreliable due to small sample sizes and are not included.

### 5.8.1 The Model

A dichotomous variable indicating purchase of SELECT (= 1) or a non-network standard Medigap plan (= 0) is modeled as a function of:

$$\text{SELECT} = \beta_0 + \beta_1 \cdot \text{DEMO} + \beta_2 \cdot \text{RES} + \beta_3 \cdot \text{HS} + \beta_4 \cdot \text{USC} + e$$

where DEMO = a set of personal characteristics including age, sex, race, Hispanic **ethnicity**, education, income, and marital status.

**RES** = a set of variables describing the beneficiary's residence and living situation, including the number of persons in the household (indicators for one and three or more), home ownership, type of residence, number of years residing in the current state of residence, and the number of months spent out-of-state each year.

**HS** = a set of variables describing health status, including perceived health status, number of chronic medical conditions, number of restricted activity days, and a scale composed of seven ADL and **IADL** items.

USC = a set of variables **describing whether** the beneficiary had a **usual** source of care prior to purchasing SELECT (for SELECT beneficiaries) or currently (for comparison beneficiaries), satisfaction with that usual source of care, whether the beneficiary **had** experience with a managed care plan before becoming eligible for Medicare, and satisfaction with that experience.

e = the error term.

Demographic *characteristics* are included<sup>1</sup> in the model **because** they are the basic descriptors of the population. **Age and sex should** not be: significant because the experimental and comparison groups were initially matched on these characteristics at the time they were sampled, but they are included to **control** for residual effects from variation in match and response rates. Based on the cross-tabulations presented earlier **in** this chapter, we hypothesize that blacks, Hispanics, persons with an elementary school education, and persons with low income will be more likely to purchase SELECT, The model **will** indicate if this is essentially an income effect or **whether** race, **ethnicity, and** education contribute independently to the choice of SELECT.

The variables representing *residence* reflect several underlying dimensions including independent living, social **support**, and assets (through the **indicator** of home ownership). The number of years the beneficiary has resided in the current state of residence reflects to some extent the opportunity the **beneficiary** has had to form stable provider relationships. The number of months spent out-of-state is an **important** indicator because persons who travel frequently should be less likely to buy a product that **restricts their** use of providers to those in one area.

*Health status* is a key indicator of adverse **selection**. Based on the bivariate data presented earlier in this chapter, we expect **no** difference: in health status between the SELECT and comparison groups.

Research on enrollment in managed **care** plans has consistently found the presence of a *prior* usual source of care to be a significant determinant. We expect that persons with a prior usual source are less likely to be enrolled in **SELECT plans**. We also determined whether beneficiaries had been enrolled in a **managed** care plan **that** used physician or hospital networks prior to becoming eligible for Medicare. Ultimately, the effect of having a prior usual source of care and prior experience with managed care on the choice of **SELECT** should depend on how

satisfied the beneficiary was with those prior experiences. We also measured satisfaction with the prior usual source and the prior managed care experience.

Thus, the model includes four variables reflecting these factors: an indicator of prior usual source of care, an indicator of pre-Medicare managed care enrollment, and a separate indicator of dissatisfaction with each. We expect that persons with a prior usual source of care will be less likely to purchase SELECT because it may jeopardize access to that source, persons with prior managed care experience will be more likely to purchase SELECT because they are familiar with managed care, persons who have been dissatisfied with their prior usual source will be more likely to purchase SELECT because their ties to that provider are weak, and persons who are dissatisfied with their prior managed care experience will be less likely to purchase SELECT because they distrust managed care.

The models were estimated using the sample weights, with the logistic regression procedure in SUDAAN, which accounts for the effects of unequal sampling on the variances of the estimates. Exhibit 5.21 displays the categories used for each variable and the weighted means and proportions for the observations included in the models.

### **5.8.2 Results for Beneficiaries Age 65 and Older.**

Exhibit 5.22 presents the results for the population age 65 and older by state. We indicate three levels of significance for each coefficient with a superscript: **0.01**, **0.05**, and 0.10. Although we indicate 0.10 to provide more information, we have elected to be conservative and use 0.05 as the criterion for significance.

*Demographic **Characteristics**.* Age and sex are never significant (except for the 80-84 age group in Missouri and Wisconsin, which are not meaningful). This is expected because the SELECT and comparison groups were matched on age and sex. Marital status was also never significant. The other demographic variables had a less pronounced effect than we had expected based on the cross-tabulations in Exhibits 5.3 and 5.4. Blacks were significantly more likely to purchase SELECT in Alabama, Missouri, and Texas, but they were less likely to purchase it in Wisconsin. Since Wisconsin **HMOs** market SELECT mainly to persons retiring from their employee groups, this **finding** could reflect that black persons are less likely **to enroll in these HMOs** before retiring or are less likely to be employed by the groups that contract with these

Exhibit 5.2 1  
Choice Model Means and Proportions  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
SELECT	77.5%	49.4%	48.2%	58.0%	58.3%	57.6%
non-SELECT	22.5%	50.6%	51.8%	42.0%	41.7%	42.4%
DEMOGRAPHICS						
AGE						
85+	4.2%	8.3%	5.4%	5.5%	6.2%	3.5%
80-84	9.1%	16.9%	15.3%	11.2%	12.4%	5.1%
75-79	17.3%	22.4%	18.8%	17.9%	17.7%	10.5%
70-74	26.0%	24.1%	27.2%	28.1%	30.3%	26.3%
65-69	43.4%	28.3%	33.3%	37.1%	33.1%	54.6%
GENDER						
male	42.9%	37.9%	45.5%	40.4%	40.9%	41.9%
female	57.1%	62.1%	54.5%	59.6%	59.1%	58.1%
RACE						
Black	14.9%	0.8%	1.8%	8.7%	2.9%	0.7%
other than Black	85.1%	99.2%	98.2%	91.3%	97.1%	99.3%
Hispanic	2.6%	11.9%	3.1%	1.1%	12.5%	0.9%
other than Hispanic	97.4%	98.1%	96.9%	98.9%	87.5%	99.1%
EDUCATION						
elementary	21.6%	5.7%	8.4%	13.6%	18.2%	15.0%
more than elementary	78.4%	94.3%	91.6%	86.4%	81.8%	85.0%
college	23.4%	53.2%	41.5%	35.5%	32.6%	31.1%
less than college	76.6%	46.8%	59.5%	64.5%	67.4%	68.9%
INCOME						
<\$6,001	26.4%	11.8%	15.1%	15.7%	21.1%	12.5%
\$6,001-8,000	18.2%	8.4%	11.1%	13.8%	13.8%	14.4%
\$8,001-10,000	14.5%	12.1%	15.2%	16.0%	15.3%	17.2%
\$10,001-14,000	19.7%	24.0%	20.8%	18.9%	20.6%	25.4%
\$14,001-26,000	16.3%	25.9%	24.9%	24.8%	21.5%	22.4%
>\$26,000	4.9%	17.8%	12.9%	10.8%	7.6%	8.1%
MARITAL STATUS						
married	63.0%	60.2%	63.3%	56.8%	63.9%	67.7%
other	37.0%	39.8%	36.7%	43.2%	36.1%	32.3%

Exhibit 5.21  
Choice Model **Means** and Proportions  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
<b>RESIDENCE STATUS</b>						
#PERSONS IN HOUSEHOLD						
lives alone	29.6%	34.9%	28.7%	34.7%	31.0%	26.8%
does not live alone	70.4%	65.1%	71.3%	65.3%	69.0%	73.2%
3+ people	11.5%	4.6%	8.0%	9.1%	8.9%	7.2%
<3 people	88.5%	95.4%	92.0%	90.9%	91.1%	92.8%
TYPE OF HOME						
nursing home/assisted living	0.1%	0.6%	0.7%	0.7%	0.8%	0.4%
live w/ friend/relative	4.2%	2.5%	2.9%	2.7%	2.3%	1.7%
own or rent own home	95.7%	96.9%	96.4%	96.5%	97.0%	97.9%
TIME IN STATE						
lived in state 0-9 years	7.6%	29.9%	25.3%	4.0%	5.3%	3.4%
lived in state 10+ years	92.4%	70.1%	74.7%	96.0%	94.7%	96.6%
# MONTHS AWAY FROM STATE						
	0.15	0.57	0.43	0.19	0.14	0.35
<b>HEALTH STATUS</b>						
PERCEIVED HEALTH STATUS						
excellent	24.7%	28.7%	28.5%	26.7%	26.2%	24.1%
very good	26.8%	29.7%	26.6%	29.1%	27.8%	36.2%
good	25.5%	27.0%	27.6%	27.1%	26.0%	28.0%
fair	16.3%	10.5%	13.3%	11.9%	13.7%	9.7%
poor	6.7%	4.1%	4.0%	5.1%	6.3%	2.0%
# MEDICAL CONDITIONS						
	2.79	2.58	2.49	2.28	2.64	2.01
# DAYS IN BED LAST MONTH						
1 or more days in bed	15.5%	16.7%	14.8%	14.0%	14.6%	10.2%
no days in bed	84.5%	83.3%	85.2%	86.0%	85.4%	89.8%
ADL INDEX						
	8.43	8.31	8.24	8.37	8.48	7.74

Exhibit 5.2 1  
Choice Model Means and Proportions  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
<b>USUAL SOURCE OF CARE (USC)</b>						
had USC	86.5%	88.1%	87.4%	90.7%	86.0%	89.0%
did not have USC	13.5%	11.9%	12.6%	9.3%	14.0%	11.0%
dissatisfied with USC	3.8%	2.7%	4.2%	3.1%	4.6%	2.0%
satisfied with USC	96.2%	97.3 %	95.8%	96.9%	95.4%	98.0%
<b>PRIOR MANAGED CARE EXPERIENCE(PMC)</b>						
had PMC	10.7%	13.9%	13.1%	14.5%	7.2%	19.0%
did not have PMC	89.3%	86.1%	86.9%	85.5%	92.8%	81.0%
dissatisfied with PMC	2.7%	5.2%	4.8%	4.3%	2.1%	2.2%
satisfied with PMC	97.3%	94.8%	95.2%	95.7%	97.9%	97.8%

Exhibit 5.22  
Choice **Model** Estimates  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
Intercept	<b>1.24#</b> (0.073)	-0.30 (0.91)	1.10 (0.77)	0.12 (0.78)	0.04 (0.79)	-0.79 (0.96)
DEMOGRAPHICS						
AGE						
85+	-0.40 (0.42)	0.08 (0.31)	-0.04 (0.32)	0.05 (0.39)	0.23 (0.38)	-0.66 (0.44)
80-84	0.04 (0.28)	-0.02 (0.22)	-0.27 (0.20)	<b>0.58*</b> (0.25)	0.16 (0.23)	<b>0.92*</b> (0.43)
75-79	-0.02 (0.17)	<b>0.34#</b> (0.18)	-0.13 (0.17)	<b>0.34#</b> (0.19)	0.23 (0.18)	0.03 (0.21)
70-74	-0.02 (0.13)	0.15 (0.16)	0.06 (0.13)	0.23 (0.15)	0.16 (0.14)	<b>-0.21#</b> (0.11)
GENDER						
male	0.04 (0.13)	0.10 (0.14)	0.00 (0.12)	<b>0.23#</b> (0.14)	0.20 (0.15)	-0.15 (0.11)
RACE						
Black	<b>0.84**</b> (0.28)	1.65 (1.05)	0.09 (0.57)	<b>1.57**</b> (0.46)	<b>1.91**</b> (0.67)	<b>-6.59**</b> (0.57)
Hispanic	1.18 (0.73)	0.29 (0.61)	0.07 (0.44)	-0.15 (0.79)	<b>1.33**</b> (0.35)	0.10 (0.9)
MARITAL STATUS						
married	-0.21 (0.32)	0.32 (0.36)	-0.23 (0.29)	-0.13 (0.30)	0.24 (0.35)	-0.24 (0.35)
EDUCATION						
elementary	0.28 (0.24)	-0.65 (0.42)	0.24 (0.29)	0.30 (0.28)	0.25 (0.27)	<b>0.53*</b> (0.24)
college	<b>-1.06**</b> (0.19)	-0.15 (0.19)	-0.20 (0.16)	<b>-0.81**</b> (0.20)	<b>-0.58**</b> (0.19)	<b>-0.45*</b> (0.18)

Standard errors in parentheses

\*\* = 0.01 significance    \* = 0.05 significance    # = 0.1 significance

Note: Reference categories are age 65-69, income greater than \$26,000, owning or renting one's home, and poor health status

Exhibit 5.22  
Choice Model Estimates  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
<b>INCOME</b>						
<\$6,001	1.16** (0.40)	0.13 (0.34)	0.76" (0.31)	0.45 (0.34)	1.00** (0.37)	1.41** (0.39)
\$6,001-8,000	0.97" (0.39)	-0.64# (0.37)	1.03** (0.32)	0.38 (0.36)	0.73# (0.37)	1.35** (0.38)
\$8,001-10,000	1.01* (0.40)	-0.39 (0.32)	0.76** (0.29)	0.72* (0.34)	1.03** (0.37)	1.17** (0.36)
\$10,001-14,000	0.71# (0.38)	-0.48# (0.26)	0.75** (0.27)	0.84** (0.31)	0.87** (0.34)	1.39** (0.34)
\$14,001-26,000	0.83" (0.38)	-0.34 (0.26)	0.86** (0.26)	0.75" (0.29)	0.33 (0.33)	0.84* (0.33)
<b>RESIDENCE STATUS</b>						
<b># PERSONS IN HOUSEHOLD</b>						
lives alone	-0.16 (0.34)	0.30 (0.35)	-0.26 (0.30)	0.01 (0.32)	0.27 (0.34)	-0.28 (0.37)
3+ people	0.17 (0.26)	0.54 (0.42)	0.05 (0.28)	-0.09 (0.32)	0.59# (0.34)	-0.38 (0.29)
<b>TYPE OF HOME</b>						
nursing home / assisted living	-7.57** (0.95)	-2.15# (1.23)	-0.44 (1.08)	-0.99 (0.92)	0.38 (1.05)	0.11 (1.64)
live w/ friend/relative	1.04* (0.46)	-0.36 (0.57)	0.60 (0.49)	-0.23 (0.54)	0.60 (0.58)	-1.40# (0.76)
<b>TIME IN STATE</b>						
lived in state 0-9 years	-1.03** (0.28)	0.216 (0.19)	-0.32# (0.17)	-1.34** (0.48)	-0.21 (0.34)	-1.02* (0.43)
# MONTHS AWAY FROM STATE	-0.098 (0.097)	-0.14* (0.69)	-0.15* (0.07)	0.26** (0.10)	0.04 (0.14)	-0.02 (0.07)

Standard errors in parentheses

\*\* = 0.01 significance    \* = 0.05 significance    # = 0.1 significance

Note: Reference categories are age 65-69, income greater than \$26,000, owning or renting one's home, and poor health status

Exhibit 5.22						
Choice Model Estimates						
Age 65 and Older Only						
	AL	AZ	FL	MO	TX	WI
HEALTH STATUS						
PERCEIVED HEALTH STATUS						
excellent	0.32 (0.45)	-0.28 (0.61)	-0.60 (0.49)	0.48 (0.48)	-0.24 (0.48)	0.94 (0.63)
very good	-0.28 (0.43)	-36 (0.6)	-0.77 (0.48)	0.36 (0.47)	-0.04 (0.47)	0.82 (0.61)
good	-0.15 (0.43)	-0.41 (0.58)	-0.63 (0.47)	0.30 (0.47)	-0.06 (0.46)	0.63 (0.60)
fair	-0.35 (0.43)	-0.29 (0.59)	-0.90* (0.46)	-0.08 (0.47)	-0.46 (0.46)	0.59 (0.62)
# MEDICAL CONDITIONS	0.060 (0.047)	0.045 (0.046)	-0.08# (0.43)	0.041 (0.057)	0.001 (0.047)	0.045 (0.053)
# DAYS IN BED LAST MONTH						
1 or more days in bed	-0.18 (0.24)	0.08 (0.25)	-0.34 (0.23)	0.73** (0.28)	-0.15 (0.26)	0.25 (0.28)
ADL INDEX	0.030 (0.03 1)	0.064* (0.032)	-0.050 (0.032)	-0.029 (0.032)	-0.021 (0.032)	-0.020 (0.053)
USUAL SOURCE OF CARE (USC)						
had USC	-0.87** (0.30)	-0.23 (0.26)	-0.19 (0.24)	-0.65* (0.32)	-0.66** (0.25)	-0.36 (0.26)
dissatisfied with USC	1.05# (0.56)	1.00# (0.57)	1.43** (0.41)	1.57* (0.66)	0.97* (0.47)	0.26 (0.62)
PRIOR MANAGED CARE EXPERIENCE (PMC)						
had PMC	-0.11 (0.26)	0.71* (0.3 1)	0.33 (0.28)	0.12 (0.29)	-0.26 (0.37)	0.75** (0.23)
dissatisfied with PMC	-0.44 (0.51)	-0.83# (0.46)	-0.96* (0.43)	-0.61 (0.49)	-0.70 (0.57)	-1.46* (0.57)
n	836	651	936	716	761	802
R-Square	0.16	0.07	0.08	0.14	0.15	0.13
F-Statistic	23.26**	1.33#	2.29**	3.45**	3.99**	7.21**

Standard errors in parentheses

\*\* = 0.01 significance    \* = 0.05 significance    # = 0.1 significance

Note: Reference categories are age 65-69, income greater than \$26,000, owning or renting one's home, and poor health status

**HMOs** for employee health benefits. Hispanics were more likely to purchase **SELECT** only in Texas.

Education was represented in the model by one variable indicating an elementary school education only and another indicating college attendance. Persons who attended college **were** less likely to purchase a **SELECT** policy in Alabama, Missouri, Texas, and Wisconsin. Persons with elementary school **educations** were more likely to purchase **SELECT** only in Wisconsin. We had expected the propensity to **buy SELECT** to **decrease** as **education** increased, based on cross-tabulations, and we found this result in four of the six states..

Income was specified as a six-level **categorical** variable. The lowest category is comprised of persons with per capita family income of **\$6,000 or less** and the highest category has persons with income **above \$26,000**. The highest income **category** is used as the reference category, so that the coefficients represent the comparison of each of the other categories with the highest. The probability of purchasing a **SELECT** policy did not vary with income in Arizona, but was strongly related in the other states. In **Alabama**, persons in all income groups except \$10,000 - \$14,000, were **more** likely to purchase **SELECT** than persons in the highest group. In Florida and Wisconsin, all five of the lower income **groups** were more likely to purchase **SELECT**. The coefficients for most of the groups are **similar** to each other, suggesting that although they differ from the highest **group**, they do not differ much from each other. In Missouri, the probability of purchasing **SELECT** increased as income decreased down to **\$8,001**, but below that did not differ from persons earning more than \$26,000. In Texas, the lowest income group and the two middle groups (**\$8,001–14,000**) were more likely to purchase **SELECT** than the highest group, but the **\$6,001–8,000** and **\$14,001–26,000** groups did not differ, so the pattern is not **consistent** over the entire range.

Although the results for income vary among the states, there are two main themes. First, in four of the six states (Alabama, Florida, Texas, and Wisconsin), there is an income threshold above which **SELECT** policies are less appealing to **beneficiaries**. The wealthiest beneficiaries in these states are always less likely to purchase a **SELECT** policy than poorer persons. There is no income difference in Arizona and in Missouri it is inconsistent. Second, an income threshold always **distinguishes** persons **in the wealthiest** category from others, but below \$26,000 there are no consistent differences among income groups.

Residence. Despite a significant result for type of home in Alabama, the variables indicating the number of persons living with the beneficiary and the type of home were not meaningful. However, the two variables reflecting mobility suggest that, as expected, more mobile persons are less likely to purchase network-based products. Beneficiaries who had lived in their state for fewer than 10 years were less likely to buy SELECT in Alabama, Missouri, and Wisconsin. These **findings** could mean that SELECT is less appealing to persons who anticipate returning to a home state, because it, is less portable than unrestricted plans.

In Arizona, Florida, and Missouri, the probability of purchasing SELECT decreased as the number of months spent living out-of-state each year increased. Beneficiaries who travel frequently or live elsewhere for extended periods should be much less interested in a network plan because of the difficulty in obtaining non-emergency care out-of-network. We **find** this result in Arizona and Florida, which have highly mobile aged populations, but it is most pronounced in Missouri.

**Health Status.** Health status was not related consistently to the choice of Medicare supplement in any state. Of the 42 health status coefficients estimated (seven coefficients in each of six states), three were significant; too few to indicate a meaningful result. Thus, there does not appear to be biased selection, favorable or unfavorable, in the SELECT program in these six states, based on self-reported measures.

**Usual Source of Care.** Beneficiaries who had a prior usual source of care were less likely to buy a SELECT product in Alabama, Missouri, and Texas. This is consistent with other managed care research. However, the result for Missouri and Texas is surprising because none of their SELECT plans use physician networks.

As expected, persons who have had an unsatisfactory experience with their prior usual source of care were more likely to purchase a SELECT policy in Florida, Missouri, and Texas (and in Alabama and Arizona, as well, if the 0.10 level is used as the significance criterion). Unsatisfactory prior experience was not significant in Wisconsin.

Prior **Managed Care Experience.** Beneficiaries who had been enrolled in a managed care plan prior to their Medicare eligibility were more likely to choose a SELECT plan in Arizona and Wisconsin. Prior managed care experience had no impact in the other states. However, beneficiaries who have had an unsatisfactory experience with a managed care plan

prior to Medicare eligibility are less likely to choose a **SELECT plan** in Florida and Wisconsin (and Arizona at the .10 level).

*Summary.* **Income** is clearly an important factor in the choice of Medicare **SELECT**. The highest income group is **unlikely** to buy **SELECT** compared. **to** lower income persons. But even after **controlling** for income, ethnic minorities are more likely to buy **SELECT** than whites and college educated persons are less likely to buy it **than** those with less education. Thus, except in Arizona, the overall pattern of results suggests' that **SELECT** is more likely to appeal to minorities and persons in lower **socio-economic strata**.

Mobility and usual source of care were also important **factors**. Persons who are more mobile are less likely to buy **SELECT**, because **networks** limit beneficiaries to local providers for routine care. Although persons who had a **usual** source of care before purchasing their current Medigap product were less likely to buy **SELECT** in only three states, persons who had had an **unsatisfactory** experience with a prior usual source were **almost** always more likely to buy **SELECT** than an unrestricted. plan.

Finally, there was no difference in self-reported health status between **SELECT** and comparison **beneficiaries**, suggesting no selection bias. This **finding** increases the probability that any effects of **SELECT** on cost observed in the claims **data** reflect program impact rather than adverse selection.

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## 6.0 Cost and Utilization Effects of SELECT

In this chapter we use multivariate statistical techniques to evaluate the cost and utilization consequences of **SELECT** enrollment. The central premise of OBRA 1990, in allowing **SELECT** products to be developed and sold, was that SELECT plans would save money for the Medicare program and **beneficiaries**. In this chapter, we test this **hypothesis** from the **SELECT experience** through September 1994. We also investigate the effects of SELECT on various less comprehensive cost and utilization measures (e.g., physician **office** costs and the frequency of **physician** visits). These **component** analyses not only help to validate the larger cost results, but more importantly, they distinguish the utilization **and** cost factors contributing to the overall impact on **cost**.

### 6.1 Analytic Approach

The evaluation design for the cost and utilization analyses, **including** associated data collection and data development activities, was presented in **Chapter 2**. For the reader's convenience, we briefly review that discussion.

The **cost** and utilization analyses were limited initially to the 12 states that had enrollment in approved **SELECT products** in **February** 1994. Thus, Illinois, Massachusetts and Washington were excluded. The analysis was conducted **separately** for each state using a **4-way** quasi-experimental design, comparing the before-and-after enrollment experience of Medicare beneficiaries **newly enrolled** in **SELECT** products with the before-and-after enrollment experience of a matched sample of Medicare beneficiaries **newly enrolled** in **post-OBRA**, standardized, non-network supplemental products. The **beneficiaries** included in the two groups were matched, to the extent **possible**, by age, gender, and geographic area.

For both groups, we obtained all Medicare **claims, professional** and institutional, for services provided during the **4-year** interval, 1991 through 1994. The utilization and cost experience was then summarized by beneficiary for each of the 16 quarters in that interval. On examining time trends from the quarterly aggregates, we determined that claims reporting was highly incomplete for the last **quarter** of **1994**, and we have omitted that quarter from our impact analyses. Thus, our **data** include a maximum of **15** observations for each beneficiary. Moreover, for each beneficiary, our data **include** only those quarters for which the beneficiary

was alive, continuously eligible for Medicare (both Parts A and B), and not enrolled in an HMO.<sup>6</sup>

Exhibit 6.1 indicates the numbers of unique SELECT and non-SELECT beneficiaries included from each of the 12 SELECT states for which enrollment data were obtained.<sup>7</sup> We included all identifiable beneficiaries newly-enrolled in SELECT **products**.<sup>8,9</sup> Moreover, in each state, we sought to have an approximately equal number of non-SELECT comparison beneficiaries. However, as seen in Exhibit 6.1, the number of non-SELECT beneficiaries in several states--Alabama, Kentucky and Minnesota--is substantially less than the number of SELECT beneficiaries. In these states, our sampling frame did not include a sufficient number of newly enrolled non-SELECT beneficiaries to match the newly enrolled SELECT universe. For example, in Alabama, we have more than 30,000 SELECT beneficiaries, but only about 4,400 non-SELECT beneficiaries. Such imbalances reduce precision in estimating the SELECT effects, but they do not bias or otherwise invalidate the evaluation findings.

Exhibit 6.1 also indicates the average number of quarterly observations per beneficiary included for each sample. For example, in Alabama, SELECT beneficiaries are eligible for Medicare for an average of 10.7 quarters and comparison beneficiaries are eligible for an average of 12.1 quarters. There are several reasons for having fewer than 15 quarters of data for each beneficiary. First, the enrollment in post-OBRA products is weighted towards those newly eligible for **Medicare** (i.e., those just turning age 65); and, naturally, no claims data are

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<sup>6</sup> No claims or encounter data are available for intervals of Medicare HMO enrollment.

<sup>7</sup> Illinois, Massachusetts, and Washington had no approved SELECT plans at the time that enrollment data were collected.

<sup>8</sup> Rollovers from **pre-OBRA** network products were excluded in order to maximize the opportunity for observing a cost and **utilization** baseline with the traditional Medicare program.

<sup>9</sup> Blue Cross & Blue Shield of North Dakota had very few enrollees who met our eligibility criteria for inclusion as **SELECT** beneficiaries and could provide **HIC** numbers only for about half of them. Since BCBS is the only **SELECT** insurer in North Dakota, the **SELECT** sample **size** in North Dakota is too small to permit reliable estimates.

## Exhibit 6.1

### Numbers of Beneficiaries and Average Number of Quarters Represented in **SELECT** and Non-**SELECT** Samples

<u>State</u>	<u>SELECT SAMPLE</u>		<u>NON-SELECT SAMPLE</u>	
	<u>Number of Beneficiaries</u>	<u>Average Number of Quarters</u>	<u>Number of Beneficiaries</u>	<u>Average Number of Quarters</u>
Alabama	30,793	10.68	4,367	12.12
Arizona	1,189	12.22	1,152	12.76
California	38,680	11.57	31,415	11.50
Florida	12,393	12.36	12,145	12.61
Indiana	523	11.25	450	12.44
Kentucky	13,401	11.24	4,905	11.74
Minnesota	25,531	11.03	3,410	12.96
Missouri	4,656	12.20	3,983	11.79
North Dakota	73	9.27	140	8.80
Ohio	425	11.52	499	10.99
Texas	8,551	12.67	5,663	12.79
Wisconsin	2,339	9.63	1,695	11.23
<b>TOTAL</b>	<b>138,554</b>		<b>69,824</b>	

available for times prior to the date of Medicare eligibility. Second, for Medicare beneficiaries previously enrolled in an HMO, no information is available for the interval of HMO enrollment. Medicare simply does not collect information **on** the health care utilization and cost experience of Medicare beneficiaries while they are enrolled in **HMOs**. In several states (e.g., Wisconsin and Indiana), a substantial proportion of SELECT enrollees were formerly enrolled in an HMO. Third, a small number of beneficiaries died during the **15-quarter** period.

In evaluating the SELECT effects, 14 different dependent variables were defined and analyzed. As seen in Exhibit 6.2, some are cost measures and others are utilization measures. Although results are reported for all variables, this report focuses on the most comprehensive cost measure, namely, total allowable Medicare expense (including deductibles and copayments). That is, the greatest attention is given to answering the principal policy question, “Does Medicare SELECT reduce total health care costs?”

As a matter of analytic strategy, we were primarily concerned with measuring the SELECT effects with maximum precision while minimizing potential estimation biases. We did not seek explicitly to maximize the percentage of variation explained. Nor have we been expressly concerned with distinguishing the importance of specific demographic and other **covariates** beyond controlling for them when assessing the impact of SELECT. The issue of explaining cost differences between SELECT and comparison beneficiaries is addressed in Chapter 7.

We have estimated different model types, and we have investigated alternative parametric specifications. In exploratory analyses, we estimated linear, log-linear and two-part **Probit** models. We found that the results obtained with all three were substantially the same. Due to the greater complexity of estimation and interpretation, we chose not to use the two-part **Probit** in estimating the **final** models. The **final** cost models were estimated as log-linear relationships, and the final utilization models were estimated as linear relationships. We found that this estimation approach gave somewhat more robust and consistent estimates across different model types and different dependent variables. All models were estimated separately for each state, since the programs were implemented so differently in each state. After preliminary analyses had **been** completed, North Dakota was omitted due to insufficient sample

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**Exhibit 6.2**  
**List of Impact Assessment Measures**

- 1) Total Medicare Allowable Costs (including deductibles and coinsurance)

**Part I3 Allowable Costs**

- 2) Primary Care Physician Costs
- 3) Specialty Physician Costs
- 4) Ancillary Costs
- 5) Total Part B Costs

**Costs by Setting**

- 6) Physician Office
- 7) Outpatient Department
- 8) Inpatient Hospital

**Utilization Measures**

- 9) Number of Physician Office Visits
- 10) Number of Outpatient Department Visits;
- 11) Number of Inpatient Admissions
- 12) Number of Inpatient Days
- 13) Number of Inpatient Surgeries
- 14) Number of Ambulatory Surgeries

We report five different types of models: (1) a *cross section/time series model* using quarterly data, (2) a *fixed effects model* using quarterly data, (3) an *expandedfixed effects model* using quarterly data, (4) a two-period *prior use model*, and (5) a two-periodfirst *difference model*. Each of these models is described below.

**Cross Section/Time Series Model.** Initial analyses were conducted using a basic cross section/time series design with a maximum of 15 quarterly observations for each SELECT and non-SELECT beneficiary. Again, the data included only those quarters for which sample beneficiaries were alive, continuously eligible for Medicare Parts A and B, and not enrolled in an HMO. The model includes four key variables needed to test the effect of the SELECT program and control for selection bias and time trends, plus several other variables to control for specific beneficiary characteristics.”

**The SELECT treatment** variable is a *dummy*, dichotomous variable that ranges between zero and one. For SELECT enrollees, it was set equal to zero for quarters prior to SELECT enrollment, and set equal to one for quarters after SELECT enrollment. For the quarter in which SELECT enrollment occurred, **SELECT** was defined proportionately (e.g., set equal to 0.50 if enrollment occurred midway through a quarter). For non-SELECT enrollees, **this SELECT** variable is always zero. This variable is the indicator of a SELECT or program effect.

To distinguish pre-enrollment quarters from post-enrollment quarters, we used another dummy variable designated **MEDIGAP**. For all sample beneficiaries, this variable was set equal to zero for quarters prior to enrollment in a post-OBRA Medigap product, traditional or SELECT. **MEDIGAP** was set equal to one for quarters after such enrollment. For SELECT enrollees only, **the SELECT** and **MEDIGAP** variables have the same values. Thus, the **MEDIGAP** variable controls for or distinguishes the effect of enrollment in any post-OBRA Medigap product, traditional or SELECT, and **the SELECT** variable distinguishes the incremental or differential effect of enrollment in a SELECT product. That is, for SELECT enrollees, the effects are additive.

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<sup>10</sup> Bold type indicates a variable name in this discussion.

Another dummy variable, designated EVER, identifies **those** who **"ever"** enrolled in a SELECT product. This variable distinguishes the SELECT group from the comparison group and **controls** for prior use **differences** between the SELECT and non-SELECT beneficiaries. In essence, EVER distinguishes the **experimental** group from the comparison group; **MEDIGAP** distinguishes **pre-enrollment** quarters from **post-enrollment quarters**, and SELECT represents the interaction of the two.

We also included a variable, QUARTER, to account for the time trend effects. QUARTER **takes** a value ranging from 1 through 15 depending on which of the 15 quarters in our data set is represented by the **observation**.<sup>11</sup>

In exploratory estimation, we had **included** dummy "letter" variables for each of the NAIC standard plans **to** control for differences in the **comprehensiveness** of Medigap benefits. In some analyses, we also included several **time-related** interaction variables (namely, interactions of QUARTER with EVER, **MEDIGAP**, and **SELECT**) to discriminate differences in impact over time. In both instances, however, we found that the additional variables introduced substantial multicollinearity and **instability** in estimation. In the interest of efficiently estimating the: overall impacts, these additional variables were **excluded** in **final** estimation.

The following variables were also included as **independent** variables in the cross section/time series estimation to control **explicitly** for factors that might otherwise explain the difference between the SELECT and comparison data:

To **control** for beneficiary demographic **characteristics** that might be associated with health status and, thus, the use and cost of health services:

- six continuous variables (**AGE65, AGE70, AGE75, AGE80, AGE85 and AGE90**) **specifying** "age" in a piecewise linear fashion, \*

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<sup>11</sup> A **second** time trend variable (QUARTER **squared**) had been included in preliminary work. However, we eventually concluded **that having** multiple measures of time was causing multicollinearity problems.

<sup>12</sup> **AGE65** was defined to be actual age, up to age 65; and it equals 65 for those older than 65. **AGE70** **ranges** between zero and five. It equals, zero for those younger than 65, and it equals five for those older than 70. For those aged 65 to 70, the value is set equal to **actual** age minus 65. The other age

- a dummy variable (FEMALE) identifying those who are “female,”
- a dummy variable (BLACK) identifying those who are “black,”
- a dummy variable (OTHER) identifying those who are “other” nonwhite,

To control for the beneficiary’s Medicare eligibility status, which is associated with health status by definition:

- a dummy variable (DISABLED) identifying those who are “disabled,”
- a dummy variable (RENAL) identifying those with “renal” disease,
- a dummy variable (AGED-DIS) identifying those who are both “aged” and “disabled,”
- a dummy variable (**AGED\_REN**) identifying those who are both “aged” and have “renal” disease,

To control for other factors:

- a series of dummy variables (**Cxxx**) identifying county of beneficiary residence (to control for geographic differences in provider availability and payment rates), and
- a series of dummy variables (**INSURx**) identifying the various SELECT and **non-SELECT** insurers (to control for insurer differences in risk selection),
- three dummy variables (SPRING, SUMMER and FALL) identifying the seasons of the year (to control for seasonal variation in health care **use**).<sup>13</sup>

Whereas this model specification is reasonably comprehensive, it is nevertheless important to acknowledge that this basic cross section/time series model and all other models reported herein are incompletely specified. In particular, we had no information on beneficiaries’ prior supplemental insurance status. We did not know whether or not a given

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variables **are** defined analogously, with **AGEGT85** being an open-ended category for those older than 85.

<sup>13</sup> Winter is the omitted category.

beneficiary **had** another Medigap product **during** the time interval prior to reported enrollment in a **post-OBRA traditional** or SELECT product. As a practical necessity, our analysis must assume that the traditional and **SELECT enrollee** populations **had** the same distribution of **supplemental** benefits prior **to** post-OBRA enrollment. To the **extent** that that assumption is untrue, however, our estimates of the **Medigap** and. SELECT impacts could reflect bias.

If, for example, SELECT (due to price advantage or **market** positioning) were relatively more: attractive to Medicare beneficiaries without a prior supplemental plan, our estimates of the SELECT effects could have a positive bias. **Health** services research has consistently shown that beneficiaries with supplemental insurance have higher **Medicare** costs than those without. Indeed, our own results provide additional, strong **support** for that proposition. If so, a cost increasing result would be obtained if those enrolling in SELECT had been less likely to have a supplemental plan prior to **post-OBRA enrollment**.

Unfortunately, no comparative information was available on the prior insurance **status** of the SELECT and comparison beneficiaries. **HOWEVER**, we believe that the potential for such selection **bias** is **much** diminished **in** those states with a very large SELECT enrollment (e.g., **Alabama**, California and **Minnesot a**). Their SELECT populations are much more likely to be representative of the larger **Medicare** beneficiary universe in those states. Furthermore, inasmuch as **our** findings for these three states **mirror** the pattern of results for all 11 states in which SELECT is evaluated, we **do** not believe that the: differences seen are wholly or even substantially attributable to selection bias.

**Fixed** Effects Model. Preliminary analyses, **using** a cross section/time series **design** similar to **that** described above, found a significant, positive or cost increasing impact of SELECT in eight states. At that time, we were concerned that our findings might be partly attributable to selection bias of **one** kind or another. Indeed, subbsequent specification tests suggested that selection biases were present in those **preliminary** estimates. Specification tests evaluated differences between **SELECT** and comparison beneficiaries in terms of their Medicare costs **incurred** prior to enrollment **in** their **current** Medigap plans. In an effort to mitigate or minimize selection bias problems, we chose to **use the fixed effects** technique in estimating the SELECT effects from our final data set. Fixed effects is the standard econometric procedure for

avoiding or reducing selection bias; fixed effects controls completely for time-invariant differences among the individual beneficiaries.

In estimating the **fixed-effects** models, we estimated a unique intercept for each individual beneficiary. Fixed effects control for unmeasured person-specific characteristics. This means, however, that any other time-invariant variables (e.g., sex, race, location, and reason for entitlement) are excluded as explicit control variables in fixed effects estimation. The major limitation of **fixed** effect analysis; is that one cannot ascertain the role or importance of the excluded covariates. Nevertheless, on *a priori* criteria, fixed effects estimation should provide more robust and reliable **estimates** of the SELECT effects because it provides the strongest control for self-selection as an alternative explanation for observed cost differences. The only variables included in this model **are SELECT, MEDIGAP, QUARTER** and the three seasonal dummies because they are the only ones that vary with time.

**Expanded Fixed Effects Model.** Researchers have more recently begun adding the time-invariant covariates (e.g., sex and race) back into the **fixed** effects model and estimating an *expanded* version of the fixed effects model (Heckman and Hotz, 1989). In **evaluating the** sensitivity of our findings to alternative model specifications, we have also done that. Our expanded fixed effect model basically permits the quarter-to-quarter differentials to vary by Medicare entitlement category, county, and so forth. While such flexibility in specification has certain intuitive appeal, the expanded fixed effects model has not been widely used and its properties are not as well understood. We found that whereas the expanded model gave reasonably consistent estimates for the **SELECT** variable, the estimates for the **MEDIGAP** and **QUARTER** variables were much less stable. Moreover, **the estimates** obtained for the **time-invariant** variables were typically highly insignificant, because the **fixed** effects transformation wiped out much of the variation. Thus, we feel the traditional fixed effects model provides the better estimate of SELECT program effects.

**Prior Use Model.** A two-period prior use model was put forward as an alternative to cross section/time series estimation. In a prior use model, the utilization or cost in one period is modeled as a function of the baseline use or cost in a prior period, in addition to other factors.

In particular, prior period utilization or cost **is** included as an independent variable to control for otherwise unobserved differences in health care needs and care-seeking behavior.

The prior use approach has been used successfully in other contexts to evaluate program impacts. However, for several reasons, we believe that the prior use **model** is less appropriate than the multi--period quarterly models in evaluating Medicare SIELECT. **Both** traditional and SIELECT **beneficiaries** enroll in post-OBRA products at different times, making it difficult to obtain a consistent pre-post **comparison** for each beneficiary, as the prior use model implicitly assumes. To avoid this difficulty, we **modeled** experience in the last four quarters of our data as a function of **experience** in the **first four** quarters. Thus, anyone who was not eligible for **fee-for-service Medicare** in both **periods** was **excluded** from the analysis.

The prior use model is also **less** appropriate than the **quarterly** models because no information on prior use (or cost) was available for newly eligible **Medicare** beneficiaries and those disenrolling from an HMO. As a practical necessity, such beneficiaries were omitted in estimating the prior use model, thus excluding about **half** the SIELECT beneficiaries who were included in the cross section/time series and fixed effects models. Those excluded were mainly younger beneficiaries who were not eligible for Medicare before SIELECT products became available. Thus, a substantial portion of the SIELECT **population** is excluded in estimating the prior use model, and the **SELECT** impact estimates pertain only to older beneficiaries not **formerly** enrolled in an **HMO**. The estimates are no longer representative of the program impacts for the entire SIELECT population. Since newly eligible Medicare **beneficiaries** are the most likely group to be in the market for **Medigap** insurance, excluding them significantly impairs the policy relevance of the results from **this** model.

**First Difference Model.** The prior use results were less **consistent** with the results from the quarterly **models** than anticipated. As a preferred alternative: for detecting program effects, we also estimated a **first difference model** wherein the dependent variable was constructed as the difference between use (or cost) in **the** last year of our **data** and experience in the first year. Basically, this is **another** way of specifying a two-period prior use model. The results with this specification 'were much more **satisfactory**. Again, **all cost models** were estimated as log-linear relationships and all utilization models were **estimated** as linear **relationship**. Furthermore, the models were estimated separately for each state,

## 6.2 Results

### 6.2.1 Total Cost per Beneficiary

Although a variety of models have been estimated, the simple fixed effects results are the more reliable and stable. They also permit inferences to the most inclusive and representative reference population, and provide the strongest control for selection bias as an alternative explanation. Thus, we emphasize the results of the **fixed** effects model in this report. Nevertheless, the other models, with the exception of the basic prior use model, yield results that are broadly consistent and indicate similar appraisal of the SELECT program impacts.

The SELECT impact **estimates** from the **fixed** effects model are reported in Exhibit 6.3. The actual coefficients estimated for **the SELECT** variable are provided by state, along with their standard errors. The exhibit also shows the estimated percentage cost impacts by state and their associated 95 percent confidence **intervals**.<sup>14</sup>

SELECT impact estimates are provided for the 11 SELECT states with **useable data**.<sup>15</sup> Nine of the 11 estimates are significant at the **.05** level or **better**.<sup>16</sup> Significant, positive (**cost-increasing**) estimates are obtained for five states--Alabama, Arizona, Indiana, Texas, and Wisconsin; and significant, negative (cost-decreasing) estimates are obtained for four states--California, Florida, Missouri, and Ohio. The significant, positive impacts on cost range from a low of 8.3 percent in Texas to a high of 45.2 percent in Indiana; and the significant, negative impacts on cost range from -17.3 percent in Ohio to -4.3 percent in Florida.

The simple average of all 11 state estimates, including the insignificant ones, is -5.7 percent.” This estimate is significant at the **.01** level, and the 95 percent confidence interval

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<sup>14</sup> The estimated percentage cost impacts are based on exponentiation of the coefficients. This transformation is necessary because of the logarithmic specification.

<sup>15</sup> The dependent variable, again, is total allowable Medicare costs, including deductibles and coinsurance. The models were also estimated using the amounts actually **paid** by Medicare. The results were virtually identical.

<sup>16</sup> No additional estimates are significant at the less restrictive **.10** level.

<sup>17</sup> Specification testing suggests that our **fixed** effects estimates for several states (e.g., Arizona) may be biased downwards. If so, the actual average cost impact could be somewhat higher than our 11-state average indicates.

### Exhibit 6.3

#### Estimated SELECT Cost Impacts Using the Fixed Effects Model

<u>State</u>	<u>Coefficient Estimates</u>	<u>Estimated SELECT Effect</u>	<u>95% Confidence Level</u>
Alabama	0.146** (.025)	15.7%	10.01%, 21.4%
Arizona	0.152" (.058)	16.4	3.2, 29.7
California	-0.085** (.012)	-8.2	-10.3, -6.0
Florida	-0.044* (.018)	-4.3	-7.7, -0.9
Indiana	0.373** (0.1)	45.2	16.8, 73.7
Kentucky	0.012 (.026)	1.2	NS
Minnesota	0.005 (.04)	0.5	NS
Missouri	-0.117** (.033)	-11.0	-16.8, -5.3
Ohio	-0.190* (.1)	-17.3	-33.5, -1.1
Texas	0.080** (1.025)	8.3	3.0, 13.6
Wisconsin	0.149* (.056)	1.6.1	3.3, 28.8

Standard errors in parentheses.

# -- significant at the .10 level

\* -- **significant** at .05 level

\*\* -- significant at .01 level

NS -- not significant

ranges from **+2.1** percent to **+9.3** percent. Excluding Indiana and Ohio, the two states with the smallest sample sizes and most extreme values, the simple average of the remaining estimates is **+3.9** percent. This estimate is also significant at the **.01** level; and its 95 percent confidence interval ranges from **+1.3** percent to **+6.4** percent. Both confidence intervals include both estimates, suggesting that they are not statistically different from each other.

Weighted averages have not been developed, since we do not believe that it is appropriate to do so. Our state-specific sample sizes do not fairly reflect differences in SELECT market potential across states. The state-to-state differences in SELECT enrollment in our samples are substantially the result of differences in insurer marketing strategy and state insurance department regulatory policy rather than a reflection of the impact of SELECT managed care provisions. Moreover, as seen from the case studies, the SELECT implementations vary considerably across states. We, therefore, view the 11 states as 11 independent tests of the SELECT concept, in which case the simple average is the more relevant summary statistic.

However, any summary value that averages the results for states, including the simple arithmetic average, should be used very cautiously because the effects vary among the states so much. The simple average of program impacts should not be construed as a national impact estimate for the SELECT program. The SELECT states were not constructed as a representative sample of states or Medicare beneficiaries and we have no way of anticipating how other states would implement SELECT.

**Alternative Model Estimates.** The estimates of the impact of SELECT on costs from all five models are shown in Exhibit 6.4. With the exception of the prior use model, the simple averages of the 11 state-specific estimates are similar to and included in the 95 percent confidence interval for the **+5.7** percent estimate obtained using the fixed effects model. The basic cross section/time series model yields an average estimate of **+4.3** percent; the expanded fixed effects model yields an average of **+3.8** percent; and the two-period, first difference model yields an average of **+3.6** percent. The first two are significant at the 0.10 level. The prior use model, on the other hand, yields a simple average of -2.2 percent that is not significantly different from zero.

# Exhibit 6.4

## Estimates of SELECT Percentage Cost Impacts Wing Alternative Models

State	QUARTERLY			TWO PERIOD	
	Cross Section/ Time Series	Fixed Effects	Expanded Fixed Effects	P r i o r	First Difference
Alabama	10.0%***	15.7%**	7.5%**	16.4#	22.0**
Arizona	16.2*	16.4"	16.4*	40.6*	27.3
California	-10.0**	-8.2***	-6.9**	-16.3**	-8.6**
Florida	-2.6	-4.3"	-4.4**	-13.2**	-4.4
Indiana	54.2**	45.2" *	30.9**	-6.5	13.8
Kentucky	-3.5	1.2	-0.5	-3.4	-10.4#
Minnesota	-9.7**	0.5	1.9	3.9	2.3
Missouri	-11.9**	-11.0**	-8.2**	-9.5	-9.3
Ohio	-33.0**	-17.3"	-12.5#	-13.5	-26.6
Texas	0.9	8.3***	7.0**	-7.3	14.6*
Wisconsin	37.0***	16.1"	11.1*	-15.5	18.9
<b>Average</b>	<b>4.33*</b>	<b>5.70***</b>	<b>3.84*</b>	<b>-2.20</b>	<b>3.59</b>

# Significant at .10 level.

\*\* Significant at .01 level.

\* Significant at .05 level.

As anticipated, fewer estimates are significant in the two-period models (i.e., the prior use and **first** difference models). Nevertheless, in the prior use model, all four significant **estimates** have the same sign that they did in the fixed effects model. Two estimates are positive (Alabama and Arizona); and two estimates are negative (California and Florida). With the **first** difference model, four estimates are also significant. Two are positive (Alabama and Texas); and two are negative (California and Kentucky); the **fixed** effects model indicated the same pattern, although Kentucky was not significant. With the exception of Minnesota, the estimates obtained using the first difference model have the same sign as those obtained from the **fixed** effects model.

The results obtained using the expanded fixed effects model are substantially similar to the results from the simple **fixed** effects model. In the expanded model, the same nine states yield significant estimates, and all nine have the same sign or direction. Using the basic cross section/time series model, we obtain eight significant estimates. Seven of these were also significant in the simple fixed effects models, and all seven had the same sign.

**Medigap Impact Estimates.** As discussed above, the **MEDIGAP** variable is also an impact variable. Its coefficient indicates the effect of enrollment in a post-OBRA supplemental product, whether it be traditional or SELECT. The results obtained for this variable from the fixed effect model are summarized in Exhibit 6.5. We obtain positive estimates for all 11 states; and nine of them are significant. The estimates range from **+3.4** percent to **+24.1** percent; and the average is **+16.6** percent.” The average is significant at the **.01** level, and the 95 percent confidence interval ranges from 13.1 percent to 20.2 percent.

These results for the **MEDIGAP** variable reconfirm and support findings **from** other studies that have consistently found supplemental insurance to be associated with increased Medicare utilization and costs. We included the **MEDIGAP** variable to control for this effect; and clearly, if we had not done so, our estimates of the SELECT effects would have been biased

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<sup>18</sup> **The** averages from the basic cross section/time series and expanded **fixed** effects models are, respectively, **+25.9** percent and **+12.6** percent.

## Exhibit 6.5

### Estimated Medigap Cost Impacts Using the Fixed Effects Model

<u>State</u>	<u>Coefficient Estimates</u>	<u>Estimated Effect</u>	<u>95% Confidence Level</u>
Alabama	0.163** (.026)	17.7%	11.7%, 23.7%
Arizona	0.100# (.059)	10.5	-2.3, 23.3
California	0.192** (.012)	21.2	18.3, 24.0
Florida	0.197** (.018)	21.8	17.5, 26.1
Indiana	0.033 (.098)	3.4	NS
Kentucky	0.179** (.027)	19.6	13.3, 25.9
Minnesota	0.063 (.04)	6.5	NS
Missouri	0.182** (.033)	20.0	12.2, 27.7
Ohio	0.216* (.098)	24.1	0.3, 48.0
Texas	0.138** (.026)	14.8	9.0, 20.7
Wisconsin	0.209** (.05)	23.2	11.2, 35.3

Standard errors in parentheses.

# -- significant at the .10 level

\* -- significant at .05 level

\*\* -- significant at .01 level

NS -- not significant.

upwards substantially. The estimates for the **SELECT** impacts in Exhibit 6.3 are incremental or additive to the **MEDIGAP** impacts indicated in Exhibit 6.5.

**Other Model Results--An Illustrative Example.** For the sake of economy, full results are not reported for all states. However, for illustrative purposes, we report full results for California.

In Exhibit 6.6, we see that the time-invariant terms were dropped from the fixed effects model. While they are added back into the expanded fixed effects model, most of the **coefficient** estimates obtained for the time-invariant variables in that model are highly insignificant.

The results obtained for variables included in all three quarterly data models are consistent. The **SELECT** and **MEDIGAP** results have already been discussed. All three models indicate that the Medicare costs **vary** significantly with the **QUARTER** time trend variable. Also, all three indicate that costs are significantly higher in the Spring and Fall quarters, relative to Winter.

Looking at the models which include time-invariant variables, only the basic cross section/time series and prior use models are directly comparable. The first difference alternative models the rate of change rather than the level of Medicare costs. The cross-section/time series and prior use models indicate opposite signs for the **FEMALE** variable. Based on prior research, **we think that the cross section/time series estimate** is more plausible. In other studies, researchers have consistently found that female beneficiaries have higher costs. The cross section/time series and prior use results both indicate that Medicare costs decline with age to age 65, and then increase monotonically until age 85. Likewise, both models **find** that the costs are significantly lower for *other* (persons whose race is neither black nor white); and both indicate that the costs are substantially higher for the disabled and those with renal disease. The two models, however, indicate different results for the two dual entitlement variables.

# Exhibit 6.6

## Full Model Results for California

	<u>Variable</u>	<u>QUARTERLY</u>			<u>TWO PERIOD</u>	
		Cross Section/ <u>Time Series</u>	<u>Fixed Effects</u>	Expanded <u>Fixed Effects</u>	P r i o r	<u>First Difference</u>
6-19	Intercept	5.024** (0.148)	--	-0.189# (0.113)	5.059** (0.532)	0.144 (0.689)
	MEDIGAP	0.244** (0.013)	0.192** (0.012)	0.151** (0.010)	--	--
	SELECT	-0.105** (0.013)	-0.085** (0.012)	-0.071** (0.010)	-0.178** (0.034)	-0.090** (0.030)
	EVER	0.607*** (0.013)	--	0.020** (0.005)	--	--
	QUARTER	0.030** (0.001)	0.052** (0.001)	0.046** (0.001)	--	--
	SPRING	0.041** (0.008)	0.037*** (0.007)	0.038** (0.007)	--	--
	SUMMER	0.000 (0.009)	-0.006 (0.007)	-0.006 (0.007)	--	--
	FALL	0.041** (0.009)	0.039*** (0.007)	0.042** (0.007)	--	--
	FEMALE	0.135** (0.006)	--	0.002 (0.005)	-0.086** (0.021)	-0.150** (0.027)
	BLACK	-0.033 (0.026)	--	0.003 (0.021)	-0.094 (0.090)	-0.147 (0.118)

# Exhibit 6.6

## Full Model Results for California

Variable	Cross Section/ Time Series	QUARTERLY		TWO PERIOD	
		Fixed Effects	Expanded Fixed Effects	Prior Use	First Difference
THE	-0.499** (0.013)	--	0.001 (0.010)	-0.333** (0.047)	0.092 (0.061)
DIS	1.168** (0.032)	--	0.116** (0.024)	0.623** (0.127)	0.026 (0.165)
REL	4.292** (0.080)	--	0.108# (0.062)	2.103** (0.279)	-0.913* (0.363)
LAG	-0.272** (0.034)	--	-0.056* (0.026)	-0.111 (0.126)	0.07 (0.163)
CAD	-0.864** (0.096)	--	-0.067 (0.074)	0.604# (0.330)	2.314** (0.430)
CAD	-0.021** (0.002)	--	0.000 (0.002)	-0.005 (0.008)	0.009 (0.010)
7ED	0.092** (0.002)	--	0.043** (0.002)	0.026 (0.018)	0.015 (0.023)
7ED	0.067** (0.003)	--	-0.008** (0.002)	0.041** (0.008)	-0.008 (0.010)
8ED	0.063** (0.004)	--	-0.002 (0.003)	0.003 (0.01)	-0.058** (0.013)
D8E	0.024** (0.005)	--	0.002 (0.004)	0.042** (0.013)	0.019 (0.016)
EAG	-0.004 (0.004)	--	-0.002 (0.003)	0.012 (0.010)	0.005 (0.013)

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Exhibit 66

Full Model Results for California

<u>Variable</u>	<u>QUARTERLY</u>			<u>TWO PERIOD</u>	
	<u>Cross Section/ Time Series</u>	<u>Fixed Effects</u>	<u>Expanded Fixed Effects</u>	<u>Prior Use</u>	<u>First Difference</u>
Cxxx	NR	--	NR	--	--
INSURx	NR	--	NR	--	--
Log (Prior Use)	--	--	--	0.325** (.0004)	--
Adjusted R <sup>2</sup>	0.952	0.377	0.377	0.178	0.0005
n	808,778	808,778	808,778	35,294	35,294

Standard errors in parentheses

#Significant at the .10 level.

\*\*Significant at the .01 level.

\*Significant at the .05 level.

NR = Not Reported.

### 6.2.2 Other Cost and Utilization Measures

The discussion above focuses on results obtained with our most comprehensive cost measure, total allowable Medicare cost. However, the effect of SELECT on 13 additional dependent variables, measuring less comprehensive cost and utilization outcomes, were also investigated. The SELECT coefficient estimates obtained for these measures are reported in Exhibits 6.7, 6.8 and 6.9. These component results help to validate the comprehensive cost results and to distinguish the utilization and cost factors contributing to the overall cost impact.

Exhibit 6.7 reports the SELECT coefficient **estimates** for various Part B cost measures; Exhibit 6.8 reports the estimates for total Medicare costs by setting; and Exhibit 6.9 reports the estimates for selected utilization **measures**. These are the actual coefficients estimated from the model, not estimates of the percentage impact. Exhibit 6.10 provides supplemental information on hospital admissions. We now consider the pattern of results for each study state.

**Alabama.** Consistent with our estimate of a significant positive effect on total Medicare costs, we obtain significant positive coefficient estimates on **SELECT** for all seven component cost measures included in Exhibits 6.7 and 6.8. Moreover, our results indicate that SELECT is associated with both increased ambulatory costs and increased inpatient costs. In Exhibit 6.9, however, we find only that SELECT is associated with a greater office visit intensity. The **SELECT** variable is not significant in any of the three inpatient utilization models. This prompts us to ask, “How can SELECT increase inpatient costs without also increasing inpatient use?” Exhibit 6.10 suggests an answer.

For the SELECT and non-SELECT hospital admissions in each state, Exhibit 6.10 shows (1) the average DRG **casemix** weight, (2) the percentage admitted to a teaching hospital, and (3) the percentage in a disproportionate share hospital. For Alabama, we observe no meaningful differences in the average **casemix** weights and the disproportionate share percentages. However, we find that a substantially greater percentage of SELECT patients were admitted to teaching hospitals, 42.8 percent of SELECT patients compared to 30.8 percent of the **non-SELECT** patients. Inasmuch as Medicare pays teaching hospitals additionally for direct and indirect medical education costs, otherwise similar patients (e.g., ones with the same case weight) admitted to a teaching hospital are more costly.

## Exhibit 6.7

### Coefficient Estimates for Part B Allowable Costs

<u>State</u>	<u>Primary Care Physician</u>	<u>Specialty Physician</u>	<u>Ancillary Services</u>	<u>Total Part B</u>
Alabama	0.117**	0.113**	0.119**	0.142**
Arizona	NS	0.1192**	0.096#	0.148**
California	-0.017#	-0.080**	-0.046**	-0.081**
Florida	0.040**	NS	-0.056**	-0.031#
Indiana	MS	0.336**	0.254**	0.326**
Kentucky	MS	NS	0.063	NS
Minnesota	NS	NS	NS	NS
Missouri	-0.059*	-0.100**	-0.075**	-0.108**
Ohio	NS	NS	-0.159#	NS
Texas	0.120**	NS	0.038#	0.056*
Wisconsin	0.257**	0.153**	NS	0.165**

# Significant at .10 level.

\*\* Significant at .01 level.

\* Significant at .05 level.

NS = Not Significant

## Exhibit 6.8

### Coefficient Estimates for Costs by Setting

<u>State</u>	<u>Physician Office</u>	<u>Outpatient Department</u>	<u>Inpatient Hospital</u>
Alabama	0.108**	0.092**	0.080**
Arizona	0.111*	NS	NS
California	-0.032**	-0.050**	NS
Florida	-0.035*	-0.078**	NS
Indiana	0.209**	0.309**	0.283**
Kentucky	NS	NS	NS
Minnesota	NS	NS	NS
Missouri	-0.051#	-0.092**	NS
Ohio	NS	NS	NS
Texas	0.061**	0.095**	0.074**
Wisconsin	0.251**	NS	NS

# **Significant** at .10 level.

\*\* **Significant** at .01 level.

\* **Significant** at .05 level.

NS = Not Significant

Exhibit 6 . 9

Coefficient Estimates for Utilization Measures

<u>State</u>	<u>Office Visits</u>	<u>Outpatient Department Visits</u>	<u>Inpatient Admissions</u>	<u>Inpatient Days</u>	<u>Inpatient Surgeries</u>	<u>Ambulatory Surgeries</u>
Alabama	0.080**	NS	MS	NS	NS	NS
Arizona	0.139**	0.057**	0.006#	0.099#	0.039#	0.030*
California	NS	-0.020**	NS	NS	NS	NS
Florida	NS	-0.036**	NS	NS	NS	NS
Indiana	NS	0.078*	-0.012#	NS	NS	NS
Kentucky	0.043 **	-0.022**	NS	NS	-0.013*	0.059#
Minnesota	NS	NS	NS	0.043	NS	NS
Missouri	NS	-0.057**	NS	NS	NS	NS
Ohio	NS	INS	-0.010#	-0.249**	NS	NS
Texas	NS	0.016*	0.003*	0.040#	NS	-0.035**
Wisconsin	0.083**	NS	NS	NS	NS	NS

# Significant at .10 level.

\*\* Significant at .01 level.

\* Significant at .05 level.

NS = Not Significant.

# Exhibit 6.10

## Hospital and Casemix Characteristics for SELECT and non-SELECT Admissions, By State, 1993

State	PERCENTAGE IN TEACHING HOSPITAL <sup>1</sup>		PERCENTAGE IN DISPROPORTIONATE SHARE HOSPITAL*		DRG CASEMIXWEIGHT	
	SELECT	Non-SELECT	SELECT	Non-SELECT	SELECT	Non-SELECT
Alabama	42.8%	30.8%	60.7%	62.5%	1.4	1.4
Arizona	12.5	36.2	13.1	43.3	1.6	1.5
California	30.6	29.9	57.3	58.2	1.6	1.6
Florida	28.3	30.7	43.1	38.4	1.5	1.5
Indiana	18.7	30.1	75.3	83.1	1.4	1.5
Kentucky	43.9	45.1	24.4	50.2	1.4	1.4
Minnesota	44.3	39.2	17.4	15.3	1.4	1.4
Missouri	52.4	36.7	10.1	9.7	1.4	1.4
North Dakota	33.3	74.1	0.0	0.0	1.4	1.4
Ohio	65.1	59.2	54.0	36.7	1.3	1.3
Texas	18.1	31.4	58.8	55.6	1.4	1.5
Wisconsin	66.1	73.0	28.4	20.4	1.4	1.5 <sup>1</sup>

<sup>1</sup> Based on PPS Impact file (1993).

**Arizona.** We reported above that **SELECT** increased **Medicare** costs in Arizona. However, the results in Exhibit 6.8 indicate that **SELECT** **increases** Medicare costs only **in** the physician office setting. No significant effects on either outpatient department or inpatient hospital costs are seen. Moreover, the results in Exhibit 6.7 suggest that specialists and associated ancillary services are responsible for the increased ambulatory care costs, since **SELECT** is not found **to** be associated with increased primary care physician (**PCP**) costs..

**Positive,** significant coefficient estimates **are** obtained for all six utilization measures in Exhibit 6.9, including the three inpatient use measures. This result prompts us to ask, “How can **SELECT** increase inpatient utilization without also increasing inpatient costs?” This question is also answered from the hospital admissions data in Exhibit 6.10. For Arizona, we see **that** **SELECT** patients are both less likely to be admitted to a teaching hospital (12.5 percent compared to 36.2 percent), and less likely to be admitted to a disproportionate share hospital (13.1 percent compared to 43.3 percent). Thus, **SELECT** patients are being admitted to less costly **hospitals**, and the savings achieved on a per admission basis possibly offset the costs of increased admissions.

We also see from Exhibit 6.9 that the **SELECT** patients have a somewhat higher **casemix** index, 1.56 compared 1.46. This suggests that the **SELECT** plans in Arizona have enrolled a less favorable risk (i.e., patients **requiring more** costly, higher intensity care). The fixed (effects procedure controls for such differences in estimating **SELECT** effects, but only to the extent that the risk **profile** differences existed prior to **SELECT** enrollment.

**California.** Our results above indicate that Medicare is saving money on **SELECT** in California. Our supplemental results in Exhibits 6.7 and 6.8 suggest that the cost savings is coming entirely from ambulatory care. Both physician office and hospital outpatient department (OPD) costs are reduced; and the costs are reduced for **PCPs**, specialists, and ancillary services. No impacts on either inpatient costs or utilization are indicated. Indeed, only one utilization measure elicits a significant coefficient; for **OPD** visits, we estimate a significant negative impact. Finally, as seen in Exhibit 6.10, the characteristics of **SELECT** and non-**SELECT** **hospital** admission in California are similar,

**Florida.** SELECT was also estimated to reduce the total Medicare costs in Florida. As in California, it appears that the cost savings effect in Florida is coming from ambulatory care. Here also, the results indicate that both physician **office** and OPD costs are reduced, and no impact on inpatient costs is found. As in California, we also find that the OPD visit rate is reduced. As seen in Exhibit 6.7, however, other results are mixed. Although no impact on specialty physician services is seen, the results indicate both that ancillary costs are reduced and that PCP costs are increased. Since total Part B costs are also reduced, the savings on ancillary costs apparently more than offset the increased PCP costs.

As seen in Exhibit 6.10, a somewhat lower percentage of SELECT patients in Florida are admitted to teaching hospitals and a somewhat higher percentage are admitted to disproportionate share hospitals. The average **casemix** weights are virtually identical for the two groups.

**Indiana.** Although the sample size for Indiana was small compared to nine of the other states, we nevertheless estimated that SELECT had a significant and **sizeable** cost increasing effect in this state. With the exception of PCP costs, we obtain significant positive impact estimates for all seven cost measures included in Exhibits 6.7 and 6.8. In Exhibit 6.9, however, we estimate significant utilization impacts for only two measures, namely, a positive impact on OPD visits and a negative impact on acute hospital admissions. Moreover, Exhibit 6.10 is not helpful in explaining this pattern. As we see, SELECT patients in Indiana have lower **casemix** weights, and are both less likely to be admitted to a teaching hospital and less likely to be admitted to a disproportionate share hospital. How then do we account for our finding that the inpatient costs are increased? The answer must be that the SELECT admissions involve more outliers and this can only be attributed to time variant selection bias. Consider the following.

In Indiana, 15 percent of the SELECT enrollees had been disenrolled from an HMO, compared to only 1.6 percent of the non-SELECT enrollees. If the HMO disenrollees were not only sicker than average, but also getting sicker at a disproportionate rate, our **fixed** effects estimation approach would then attribute a positive cost impact to SELECT. However, comparatively little is known about the health status or health status progression of HMO

disenrollees. In most other SELECT states, we do not observe a similarly dramatic imbalance in the representation of HMO disenrollees between the SELECT and non-SELECT groups.”

**Kentucky.** In both Kentucky and Minnesota, we had detected no significant effects of SELECT on overall Medicare costs.. In general, those results are mirrored in the other findings. In Kentucky, we find that only the: ancillary costs are increased. However, we also find evidence that utilization is shifted towards more cost-effective settings. Not only is the OPD visit rate reduced and the office visit rate increased, but the inpatient surgery rate is reduced while the ambulatory surgery rate is increased. SELECT patients in Kentucky are much less likely to use a disproportionate share hospital, 24 percent of SELBCT admissions compared to 50 percent of non-SELECT admissions.

**Minnesota.** None of the cost measures in Exhibits 6.7 and 6.8 elicit a significant coefficient. We find only that inpatient days are significantly increased. This could reflect the somewhat higher usage of teaching hospitals by SELECT patients, (Exhibit 6.10).

**Missouri.** SELECT had been estimated to reduce overall Medicare costs in this state. Our supplemental results indicate a consistent pattern of cost reductions associated with SELECT. Only inpatient costs are not reduced. In Exhibit 6.9, a negative impact on OPD use is also indicated. The cost savings were achieved despite a substantially greater use of teaching hospitals, 52 percent of SELECT admissions compared to 37 percent of non-SELECT admissions. The reduction in costs for all types of services except inpatient hospital care: is paradoxical because none of the three SELECT insurers in Missouri use physician networks. All three use hospital-only networks, which leads us to expect an impact on hospital cost and use, but this is not the case,

Ohio. The Ohio results, at fiist glance, are puzzling. We had estimated above that overall Medicare costs are reduced for the SELECT enrollees in Ohio. In Exhibits 6.7 and 6.8, however, we obtain a significant negative coefficient for only one: cost measure, ancillary costs. In particular, we do not even find a significant reduction in total Part B costs. The explanation is simple. Although not reported in our tables, the coefficient estimates are uniformly negative,

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<sup>19</sup> A similarly large disparity is seen in only one other state, Wisconsin. However, the situation in that state is qualitatively different. A staff model HMO converted its entire Medicare risk program to SELECT. Thus, for this group, selection bias should not be a factor.

albeit not quite significant at conventional levels. The estimated effect on total costs, nevertheless, is marginally significant; and although the point estimate is large, in absolute terms, it is also imprecise. Indeed, the 95 percent confidence interval ranges from -2.4 percent to -34.1 percent.

The utilization results are mixed. On the one hand, in Exhibit 6.9, we see that the inpatient admission rates and inpatient days are both significantly reduced, which would imply reduced costs. On the other hand, Exhibit 6.10 shows that the SELECT patients are more likely to use both teaching hospitals and disproportionate share hospitals, which should increase costs. Apparently the utilization reductions more than offset the higher reimbursement rates.”

Texas. As found in the aggregate, the Texas results for component services provide consistent evidence that SELECT has increased Medicare costs. We obtain significant positive estimates for the SELECT impacts on all cost measures except specialty physician services. Moreover, the utilization results indicate that the OPD and inpatient admission rates, and inpatient days are significantly increased, and that the ambulatory surgery rate is reduced. Inpatient costs are significantly higher despite the fact that SELECT patients are substantially less likely to be admitted to a teaching hospital (18 percent of SELECT admissions compared to 31 percent of non-SELECT admissions) and have a slightly lower average **casemix** weight.

Wisconsin. In Wisconsin, SELECT was estimated to increase aggregate Medicare costs. However, in Exhibits 6.7 and 6.8, we find evidence for cost increasing effects only in the physician **office** setting. No effects on OPD or inpatient costs are indicated. Moreover, both PCP and specialty physician costs are increased, but ancillary service costs are not. Consistent with this pattern, we also find that the office visit rate is increased. In Wisconsin, SELECT patients, are somewhat less likely to use teaching hospitals, but are more likely to use disproportionate share hospitals. The average **casemix** weight for SELECT admissions is also lower.

On balance, we believe that these supplemental analyses, using other cost and utilization measures, give results that are broadly consistent with our overall cost impact findings and

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<sup>20</sup> Although it should not affect the estimation, we additionally note that the average **casemix** weight for SELECT admissions in Ohio is somewhat lower than that for non-SELECT admissions. This suggests that the **SELECT** plans in that state have experienced favorable selection.

significantly validate those results. We also suggest, **based** on the: supplemental analyses, that the cost factors are different in **different** states. ‘There **seems** not to be any simple explanation for either increased or reduced costs under SELECT. Like SELECT itself, the dynamic seems to vary by state. Moreover, the supplemental analyses serve to underscore the complexity of the behavioral dynamic and to establish the merit of time-variant selection bias concerns.

### 6.3 Discussion

Our SELECT **impact** analysis has given undeniably mixed results, with the **estimated** effects varying substantially by state. Five states show cost increases; four states show cost **decreases**; and two states show no effect. Moreover, **we** see no obvious patterns of SELECT implementation that would **explain** the variation in findings among the states. For example:

- California, Florida, **Minnesota**, and Wisconsin are all reasonably mature managed care states.. Two of these states (California and Florida) show cost decreases, one state (Wisconsin) shows a **cost** increase; and one state (Minnesota) shows **no** effect.
- **All** SELECT insurers in Indiana, Kentucky, Missouri, Ohio, and Texas use hospital-only provider networks;. Two of these states (Indiana and Texas) show cost **increases**; two (Missouri and Ohio) show cost decreases; and one (Kentucky) shows **no** effect.
- SELECT products were based on pre-OBRA **products** in Alabama, California, **Minnesota**, and Wisconsin. Two of **these** states (Alabama and Wisconsin) show cost increases; one (California>, shows a cost decrease; and one (Minnesota.) shows **no** effect.

Although significant inpatient effects were indicated in three states (Alabama, Indiana, and Texas), we find that the cost impacts **predominantly** reflect differences in ambulatory care costs. The estimated impacts on **physician office** costs are significant in eight of the 11 study states; and the estimated impacts on OPD costs are: significant in six states.

In **evaluating** a program from non-e:xperimental data, one can never actually prove causality. One can only say **whether**, after **controlling statistically** for other relevant differences, the program (e.g., SELECT enrollment) is significantly **associated** with outcome differences. One must then judge **whether** the underlying analytic design is sufficient to warrant an **inference** that the estimated relationship is most **probably** a causal one.

In general, we believe that our **fixed** effects results reflect actual SELECT program impacts and cannot be easily attributed to **either** selection or specification biases. We do not, however, preclude the prospect **that** biases of one kind or another have skewed our **estimates** in one or more states. In particular, we are concerned that we do not know the Medigap insurance status of beneficiaries prior to purchase of their current policy. We are also concerned that the estimates for Indiana may not reflect true SELECT program effects because the impact is so large and the rate of transfer from Medicare **HMOs** is so much higher among SELECT beneficiaries than among comparison group members. On the other hand, we think it unlikely that analytic biases could explain the overall pattern of SELECT impact **estimates**. Indeed, the mixed nature of our **findings** tends to make the estimates all the more credible, since it is difficult to posit any other explanation.

## 7.0 Impact of Beneficiary Characteristics on Cost

### 7.1 Introduction

In this chapter, we explore: **whether** health status, income, education, and living arrangement affect the total cost of care, **using** survey data **from beneficiaries** who **completed** the survey. Results from **the** survey sample are useful for two purposes. First, we will see whether the effect of **SELECT** on total costs remains with **explicit controls** for health status and other characteristics unobservable in the claims data. **If the** results change dramatically, it would imply that choosing **SELECT** is confounded **with** other variables **and** the results in Chapter 6 may be biased from selection. Second, it **will be** interesting to see: which of the other covariates influences total costs. We will test **whether health** status, income, education, and living arrangement **affect** total costs after **controlling** for **SELECT** and other demographics.

The cost models in this chapter **differ** from the cost models **presented** in Chapter 6 in three important ways:

- They include variables from the survey that are **not** available in the claims data, in addition to the claims variables used in the cross-section/time-series model in **Chapter 6**;
- they are limited to the six **survey** states, whereas the cost models based on claims data alone **address** all 11 **states** for which claims data were available; and
- the analysis using merged survey and claims data is limited to the survey sample, which is much smaller than the **populations** analyzed in the claims-based models presented in Chapter 6. Thus, the estimates from these models are less precise.

### 7.2 Methods

The advantage of the survey data is **the** ability **to** control for other characteristics that may affect health status directly or **indirectly**. As in the claims-based cost models, the **dependent** variable remained the logarithm **of** costs **in one** quarter. We **still** control for age, gender, race, county, season of the year, whether disabled, and whether on **renal dialysis**. **The models** using survey data use the survey sample: weights, **which reflect** the probability of selection and **nonresponse** adjustments.

The most important improvement from adding survey data to the claims data is the ability to control explicitly for health status. Direct measures of health status include the number of medical conditions, whether the person spent one or more days in bed last month, a self-reported measure of health status from excellent to poor, and the number of ADL and IADL limitations reported. We expect that health status will predict medical expenditures strongly and will add greatly to the predictive power of the model. Those in better health should have lower expenditures.

The survey data also include measures of economic status concerning education and income, which are known to affect health indirectly. Education has been shown to be positively related to health status of the elderly. We created two dummy variables for whether the person had no more than an elementary school education, or at least some college education, with the omitted category being high school education. The effect of income is more complex, since it seems to affect both health status and the demand for health care. Researchers have found the greatest costs for those people with either the highest or lowest incomes. We divided income into six categories from less than \$6,000 per year to more than \$26,000 per year. These are coded as dummy variables with the omitted category being income greater than \$26,000 per year.

We **control** for several types of living arrangement, which may also affect the demand for medical care. The models include dummy variables for whether the person lives alone, is married, or lives with three or more people. We control for whether the person lives in a nursing home or assisted living facility, or lives with family or friends, because the type of living arrangement may be related to health status. Elderly persons with more chronic health needs often live with other persons.

We also control for how long a person has resided in the state, how many months he or she is away from the state each year, and whether there is a usual source of care. These measures indicate crudely whether the person has easy access to the medical care system and whether the person's residence is stable enough to take advantage of a local provider network. A person who is relatively new to the area may not be well connected with the health care system. All else being equal, we would expect that ease of access would increase medical care costs. However, we do not expect a strong association between these variables and total cost.

Before running the cost models on the survey sample with covariates from the survey data, we reran the cost models on the survey sample: without the extra covariates. This allowed us to compare the results after changing **only** ‘the sample. Specifically, we ran the cross-section/time series model and the fixed **effects** model, which is discussed in Chapter 6 on the sample who completed the survey. The **dependent** variable was the logarithm of costs in one quarter. The sample was limited to only **those** persons **in** six states who completed the **survey**. As before, each person had up to 15 observations. After confirming that the results did not change very much on the basis of a smaller **sample** (see discussion of results below) we **ran** the full model, including the survey variables.

### 7.3 Results

#### 7.3.1 Cross-section/Time Series Model Using Claims; Data Only

First, we discuss **the** results of running the cross-section/time-series model from Chapter 6 on **the** subsample of persons who **answered** the survey. We expected that these results would be similar to the: results on the full **sample** if those who completed the survey were: chosen at random. In such a **case**, the **only** difference **would** be that the standard errors **would** be larger in the: model run on the subsample. If instead the results change, then it implies that the subsample is not a representative sample and we. should interpret all further results cautiously.

The **results** were nearly **identical** in four of **the** six states for the effect of SELECT (results not shown). In Arizona, Florida, Missouri, and ‘Texas, the effect of SELECT was no different in the survey subsample than in **the** full sample:. **In Wisconsin**, the positive effect of SELECT on total cost?; became even stronger. Thus, the finding that SELECT either increases or **decreases** costs in the full sample is substantiated in the survey sample in five of the six states.

In **Alabama**, SELECT had the opposite sign **compared** to the cost analysis using the full sample. In the full sample, SELECT has **a positive** effect on costs in Alabama, while in **the** subsample, the effect is negative. **However**, unlike the other five states, the survey sample in Alabama was not designed to represent the sample used in the claims-based cost analysis. Although they account for about **three-fourths** of the persons defined as SELECT for the **claims-**based cost analysis in Alabama, beneficiaries covered **by** Blue Cross Blue Shield of Alabama were intentionally excluded from the **survey** sampling frame because the Blue Cross and Blue Shield **provider** network includes almost **all physicians and** hospitals in Alabama. They ‘were

excluded because the survey asks respondents about their experience with the SELECT provider networks and these questions would have had no meaning for Blue Cross and Blue Shield beneficiaries. Therefore, the survey sample **reflects** only the five other insurers who sell SELECT products with exclusive provider networks. Because the survey sample represents only about one-fourth of the population represented in the claims-based cost model, it is not surprising that the results differ.

Results for other variables were not qualitatively different in models run on only the survey sample. In some states, the point estimates of certain variables, particularly those with large absolute effects like being on renal dialysis change, but they retain the same sign and statistical significance.

### **7.3.2 Results with the Addition of Survey Data**

After adding the survey variables not included in claims-based models, there is a general shift in the effect of SELECT (Exhibit 7.1). For most states, the magnitude of the coefficient on SELECT became more positive. For example, in Alabama the coefficient on SELECT increased from a statistically significant -0.17 to a statistically insignificant -0.09. In Arizona, it increased from a statistically insignificant 0.14 to a statistically significant 0.29. In Florida and Texas, the coefficient increased, although in neither regression was it statistically significant. In Missouri it decreased slightly. In Wisconsin, the coefficient on SELECT decreased from 0.47 to 0.38; however, in both samples it was highly statistically significant.

Other coefficients that were in the original cost regressions, such as demographics and county of residence, remained largely the same as before. Therefore, we do not discuss their effects further and instead focus on the new variables from the survey.

The most influential variables were measures of health status. As a group, these were nearly always highly significant and in the expected direction, although the magnitudes varied somewhat across states. By far the most statistically significant variable in every state was

E&bit '7.1  
Cost Model with Survey Data  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
Intercept	<b>-14.1#</b> (8.3)	<b>-5</b> (14)	<b>5.5**</b> (0.8)	<b>3.60**</b> (0.54)	-21 (13)	<b>-19#</b> (10)
SELECT	-0.09 (0.1'1)	<b>0.29*</b> (0.12)	0.15 (0.11)	-0.16 (0.11)	<b>0.04</b> (0.11)	<b>0.38**</b> (0.12)
DEMOGRAPHICS						
AGE65	<b>0.25#</b> (0.13)	0.111 (0.22)	<b>-0.039**</b> (0.012)	<b>-0.0147#</b> (0.0078)	<b>0.374#</b> (0.209)	<b>0.34*</b> (0.15)
AGE70	<b>0.013</b> (0.022)	<b>0.077**</b> (0.026)	<b>0.06**</b> (0.02)	<b>0.080**</b> (0.022)	<b>0.183**</b> (0.022)	<b>0.108**</b> (0.019)
AGE' 75	<b>0.088**</b> (0.026)	<b>0.053*</b> (0.024)	<b>0.155**</b> (0.022)	0.019 (0.023)	-0.046'' (0.023)	-0.038 (0.026)
AGE80	<b>0.094**</b> (0.034)	<b>0.062*</b> (0.025)	<b>-0.045#</b> (0.026)	<b>0.117**</b> (0.029)	<b>0.044</b> (0.029)	<b>0.04</b> (0.04)
AGE85	<b>-0.106*</b> (0.052)	<b>-0.073*</b> (0.031)	<b>0.137**</b> (0.036)	0.013 (0.037)	0.052 (0.039)	0.080 (0.056)
AGEGT85	<b>-0.180**</b> (0.066)	<b>0.101**</b> (0.038)	<b>-0.103**</b> (0.033)	-0.036 (0.033)	0.060 (0.055)	0.017 (0.094)
GENDER male	<b>-0.277**</b> (0.068)	<b>0.072</b> (0.066)	-0.07 (0.06)	<b>-0.310**</b> (0.064)	<b>-0.271**</b> (0.067)	-0.026 (0.063)
RACE Black	<b>-0.3**</b> (0.1)	<b>0.8*</b> (0.4)	0.36 (0.25)	<b>0.22*</b> (0.11)	0.15 (0.18)	<b>0.57#</b> (0.32)
Hispanic	-0.04 (0.22)	<b>-0.43*</b> (0.22)	<b>-0.29#</b> (0.17)	<b>0.83**</b> (0.23)	<b>0.78**</b> (0.11)	<b>0.28</b> (0.27)

Standard errors in parentheses

\*\* = 0.01 significance \* = 0.05 significance # = 0.1 significance

^ Reference categories are income **greater** than \$26,000, owning or renting one's home., and poor **health** status

**Exhibit 7.1**

Cost Model **with** Survey Data  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
<b>MARITAL STATUS</b>						
married	<b>0.28*</b> (0.13)	0.02 (0.11)	-0.101 (0.096)	<b>-0.002</b> (0.105)	0.09 (0.11)	<b>0.02</b> (0.12)
<b>EDUCATION</b>						
elementary	-0.07 (0.09)	0.07 (0.13)	<b>-0.24*</b> (0.11)	0.078 (0.091)	-0.031 (0.096)	<b>-0.346**</b> (0.086)
college	<b>0.178*</b> (0.078)	<b>0.183**</b> (.063)	<b>-0.15*</b> (0.06)	0.01 (0.07)	<b>0.204**</b> (0.069)	0.047 (0.071)
<b>INCOME^</b>						
< \$6,001	-0.12 (0.15)	0.17 (0.12)	<b>-0.36**</b> (0.11)	<b>-0.70**</b> (0.12)	0.03 (0.13)	0.10 (0.14)
\$6,001-8,000	-0.23 (0.15)	0.17 (0.12)	<b>-0.20#</b> (0.11)	<b>-0.61**</b> (0.12)	-0.01 (0.13)	0.10 (0.13)
\$8,001-10,000	<b>-0.27#</b> (0.15)	<b>-0.04</b> (0.11)	<b>-0.21*</b> (0.1)	<b>-0.70**</b> (0.12)	<b>-0.30*</b> (0.13)	<b>0.24#</b> (0.13)
\$10,001-14,000	<b>-0.40**</b> (0.15)	0.058 (0.093)	0.064 (0.096)	<b>-0.56**</b> (0.11)	0.14 (0.12)	0.10 (0.12)
\$14,001-26,000	<b>-0.31*</b> (0.15)	0.028 (0.092)	-0.12 (0.09)	<b>-0.4**</b> (0.1)	-0.15 (0.11)	<b>0.26*</b> (0.12)
<b>RESIDENCE STATUS</b>						
<b># PERSONS IN HOUSEHOLD</b>						
lives alone	0.12 (0.14)	-0.17 (0.11)	<b>-0.2#</b> (0.1)	-0.14 (0.11)	-0.09 (0.11)	-0.13 (0.12)
3+ people	<b>0.20#</b> (0.11)	<b>0.58**</b> (0.17)	<b>-0.32**</b> (0.11)	<b>-0.19#</b> (0.11)	<b>-0.35**</b> (0.11)	<b>0.20</b> (0.12)

Standard errors in parentheses

\*\* = 0.01 **significance** \* = 0.05 significance # = 0.1 significance

^ Reference **categories** are income greater than \$26,000, owning or renting one's home, and poor health status

Exhibit 7.1  
Cost Model with Survey Data  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
<b>'TYPE OF HOME*</b>						
nursing home /	<b>-0.64</b>	<b>0.59#</b>	-0.15	0.03	0.25	<b>0.90*</b>
<assisted <b>living</b>	<b>(0.61)</b>	<b>(0.35)</b>	(0.24)	(0.33)	<b>(0.37)</b>	<b>(0.41)</b>
<b>live w/</b> friend/relative	<b>0.43**</b>	<b>-0.0</b>	<b>-0.33*</b>	0.19	<b>0.94**</b>	<b>0.83**</b>
	(0.16)	(0.2)	(0.17)	(0.18)	(0.20)	(0.22)
<b>TIME IN STATE</b>						
<b>lived</b> in state 0-9 years	0.14	0.027	-0.004	0.02	<b>-0.53**</b>	<b>0.78**</b>
	(0.11)	(0.0613)	(0.065)	<b>(0.16)</b>	(0.13)	(0.15)
<b># MONTHS AWAY FROM STATE</b>	<b>0.158**</b>	<b>-0.109**</b>	0.028	-0.021	<b>0.080#</b>	<b>-0.053*</b>
	(0.038)	(0.023)	(0.026)	(0.037)	(0.043)	(0.026)
<b>HEALTHSTATUS^</b>						
<b>PERCEIVED HEALTH STATUS</b>						
excellent	<b>-1.01**</b>	<b>-0.802**</b>	<b>-1.07**</b>	<b>-0.87**</b>	<b>-0.89**</b>	<b>-1.05**</b>
	(0.17)	(0.19)	(0.17)	<b>(0.16)</b>	<b>(0.17)</b>	(0.22)
very good	<b>-0.66**</b>	<b>-0.30</b>	<b>-0.57**</b>	<b>-0.67**</b>	<b>-0.56**</b>	<b>-0.81**</b>
	(0.16)	(0.18)	<b>(0.16)</b>	<b>(0.16)</b>	(0.16)	(0.21)
good	-0.26	-0.26	<b>-0.41**</b>	<b>-0.37*</b>	<b>-0.33*</b>	<b>-0.57**</b>
	<b>(0.16)</b>	(0.18)	(0.16)	(0.15)	<b>(0.16)</b>	(0.21)
fair	-0.18	-0.22	<b>-0.38*</b>	-0.09	<b>0.04</b>	-0.21
	<b>(0.16)</b>	<b>(0.18)</b>	(0.16)	(0.15)	<b>(0.16)</b>	(0.22)
<b>#MEDICAL CONDITIONS</b>	<b>0.192**</b>	<b>0.238**</b>	<b>0.18**</b>	<b>0.269**</b>	<b>0.303**</b>	<b>0.30**</b>
	(0.01~8)	<b>(0.016)</b>	(0.02)	(0.017)	<b>(0.017)</b>	<b>(0.02)</b>
<b># DAYS IN BED LAST MONTH</b>						
1 or more: days in <b>bed</b>	-0.026	<b>0.191*</b>	<b>0.321**</b>	-0.108	<b>-0.432**</b>	<b>0.218*</b>
	(0.094)	(0.082)	(0.078)	(0.089)	(0.092)	(0.103)
<b>ADLINDEX</b>	<b>0.039**</b>	<b>0.027*</b>	<b>0.0339**</b>	<b>0.029**</b>	<b>0.025*</b>	-0.015
	(0.012)	<b>(0.011)</b>	<b>(0.0094)</b>	(0.011)	(0.012)	(0.016)

Standard errors in parentheses

\*\* = 0.01 significance \* = 0.05 significance # = 0.1 significance

^ Reference categories are **income** greater than \$26,000, owning or renting **one's** home, and poor health status

Exhibit 7.1  
Cost Model with Survey Data  
Age 65 and Older Only

	AL	AZ	FL	MO	TX	WI
<b>USUAL SOURCE OF CARE (USC)</b>						
had USC	<b>0.882**</b> (0.103)	<b>0.573**</b> (0.096)	<b>0.771**</b> (0.089)	<b>0.9**</b> (0.1)	<b>0.373**</b> (0.092)	<b>0.529**</b> (0.097)
<b>ADDITIONAL VARIABLES FROM CLAIMS DATA</b>						
QUARTER	<b>0.039**</b> (0.012)	<b>0.028*</b> (0.011)	<b>0.02*</b> (0.01)	<b>0.049**</b> (0.011)	<b>0.030**</b> (0.011)	<b>0.02*</b> (0.01)
DISABLED	<b>0.70**</b> (0.12)	<b>0.248</b> <b>(0.165)</b>	-0.06 (0.11)	-0.027 (0.11)	<b>0.75**</b> <b>(0.16)</b>	0.12 (0.18)
RENAL	<b>4.69**</b> (0.36)	<b>2.1**</b> (0.03)	<b>2.37**</b> (0.34)	<b>2.49**</b> (0.55)	<b>2.00**</b> (0.36)	NA NA
EVER	NA NA	-0.22 (0.18)	<b>-0.518**</b> (0.079)	<b>0.78*</b> (0.4)	NA NA	<b>-0.60*</b> <b>(0.28)</b>
EFF_DATE	<b>0.32**</b> (0.11)	0.14 (0.11)	<b>0.23*</b> (0.11)	0.11 (0.11)	<b>0.185#</b> (0.109)	0.13 (0.11)
SPRING	<b>0.137#</b> (0.081)	0.079 (0.078)	0.110 (0.072)	-0.006 <b>(0.077)</b>	0.030 (0.075)	<b>0.168*</b> (0.078)
SUMMER	-0.003 (0.082)	<b>-0.13#</b> (0.08)	<b>0.007</b> <b>(0.073)</b>	-0.058 <b>(0.077)</b>	-0.017 <b>(0.075)</b>	0.057 (0.078)
FALL	<b>0.004</b> <b>(0.088)</b>	<b>0.246**</b> (0.081)	<b>0.158*</b> <b>(0.077)</b>	-0.06 (0.81)	0.031 (0.079)	<b>0.257**</b> (0.081)
<b>n</b>	10,362	8,139	11,612	9,724	9,470	8,127
R-Square	0.12	0.13	0.16	0.14	0.17	0.13
F Statistic	<b>248.69**</b>	<b>610.32**</b>	<b>551.74**</b>	<b>372.46**</b>	<b>244.23**</b>	<b>208.42**</b>

Standard errors in parentheses

\*\* = 0.01 significance    \* = 0.05 significance    # = 0.1 significance

All regressions include county and insurer codes which are not reported for lack of space.

the number of medical conditions. This had a positive coefficient, and the magnitude implied that each additional medical condition increased total costs by roughly 2040 percent. Self-perceived health status had higher point estimates, and lower statistical significance. Those with poor health had predicted total costs more than double those of a person in excellent health. Less reliable results came from the last two measures of health status – days in bed and **ADLs**. For several states, these variables had no significant effect, although usually they had the expected positive effect. Therefore, overall, the health status variables were extremely important in predicting total costs.

More surprising is the lack of a consistent story with the economic variables income and education. Many studies, particularly in Europe, have found that medical expenditures have a U-shape when plotted against income. The idea is that the poor are in worst health and the wealthy can afford to pay for more, and thus the high and low ends of the income distribution demand more health care. That pattern was found only for Alabama. In other states, though, we found health care costs increasing, decreasing, and unrelated to income. The two education variables also revealed an inconsistent pattern. Therefore, we conclude that income and education have no consistent effect on total costs.

The type of living arrangement has some effect on total costs, but again, the effect was not entirely consistent across states. Those who live with another family member or friend tend to have higher-costs, while those who live with three or more others tend to have lower costs. Being married or living alone has nearly no statistically significant effect. Living arrangement tends to be highly correlated with health status, so after controlling for health status, it is perhaps not too surprising that the living arrangement variables have little additional explanatory power.

Beneficiaries with a usual source of care had much higher predicted costs. In three states the costs were more than double. A usual source of care may indicate past need. It may also be related to a lower barrier to care if health needs arise. Both explanations are consistent with higher predicted costs for a person with a usual source of care.

## **7.4 Conclusion**

The main purpose of this analysis is to identify the factors that influence total costs in addition to enrollment in the SELECT program. In Chapter 6, we estimated the effect of SELECT enrollment on the total cost to the Medicare program and beneficiaries using the **fixed**

effects model as the basis for evaluation. Among the various cost models we estimated, the fixed effects model controls most effectively for selection bias due to beneficiary characteristics, such as health status. The limitation of the **fixed** effects model is that, although it controls for these personal characteristics, it provides no information that explicitly describes the impact they have on cost. The best source of information on most of these factors is the beneficiary survey, but others (e.g., reason for entitlement) are available only from administrative data. Thus, we have estimated a model of costs for each state that combines information from both survey **and** administrative sources.

We **find** that among the additional variables contributed by the survey – education, income, and living arrangements – all have some effect on cost in several of the states, but the effects are often inconsistent. The only personal characteristic consistently associated with costs in all states, after controlling for SELECT participation, is health status. Healthier beneficiaries have fewer costs, indicating that health status and SELECT make independent contributions to cost. The count of chronic conditions was more consistently associated with costs than any of the other health status measures, including self-perceived health status and measures of functional status.

## 8.0 Discussion and Conclusions

The original 3-year Medicare; **SELECT demonstration** period began on January 1, 1992, and ended December 31, 1994. It was extended by Congress twice, first through June 30, 1995, and then through June 30, 1998. To evaluate, Medicare SELECT, we collected data from case studies, **surveys** of beneficiaries and nonparticipating insurers, **and** Medicare claims that spanned the **3-year** demonstration period. The **case study** data **were** collected between months 15-18 and, therefore, mainly reflect the **first** half of the **demonstration** period. However, data collected subsequently by telephone from state insurance **departments and** insurers have updated participation **and** enrollment information through early November 1995. The insurer and beneficiary surveys were conducted between December 1994 and March 1995 and, therefore, reflect the status of the program at the end of **the** original demonstration period. The analyses of cost and utilization **used** claims data for all but the last quarter of the original demonstration period. In this chapter, we draw on all **these** sources of data for conclusions about the impact of **the Medicare SELECT** demonstration program from the perspectives of (1) Medigap insurers and **HMOs**, (2) Medicare beneficiaries, and (3) **the** Medicare program.

### 8.1 Medigap Insurers and HMOs

#### 8.1.1 Insurer Participation

Through the first half of **the** demonstration period, **only** a small percentage of active **Medigap** insurers and **HMOs** in the **demonstration** states sought approval to sell **Medicare SELECT** products. Early in the program, **HMOs** were the most common type of insurer participating in the program. **Twenty-one** **HMOs** participated in six of the 15 states. However, participants represented only about 10 percent of the **HMOs** licensed in the **SELECT** states.<sup>21</sup> About **half** of the participating **HMOs** were located in Wisconsin, where **HMOs** tended to participate only to continue serving retirees of companies with **which** they had group **contracts** for employee health **benefits**. Most of these **HMOs** did not actively market outside these groups, although most of the **HMOs** participating in the other states market **SELECT** more widely. In

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<sup>21</sup> Ten percent is an approximation based on our identification of 193 **HMOs** eligible for the insurer survey later in the project after Illinois and **Massachusetts** were designated **SELECT** states.

the second half of the demonstration period, only two additional **HMOs** obtained approval to sell SELECT products.

Based on their pattern of participation, it appears that SELECT is not an attractive product for **HMOs**. The most common reasons for not marketing SELECT reported by the nonparticipating **HMOs** in the insurer survey were that they prefer risk arrangements and that they do not participate in the Medicare supplemental market. This supports the earlier case study finding that **HMOs** see supplemental insurance as inconsistent with their traditional mission of providing comprehensive prepaid care to beneficiaries. Supplemental insurance, by definition, is not comprehensive and requires **HMOs** to function as fee-for-service insurers.

Early in the program, BCBS affiliates participated in eight states. The **affiliates** in Alabama, California, and Minnesota accounted for about three-fourths of the SELECT enrollment in all demonstration states through the first half of the demonstration period by obtaining the SELECT designation for existing plans and rolling over the entire membership of these plans into SELECT. By November 1995, two additional BCBS **affiliates** in Indiana and Washington were approved to sell SELECT products and BCBS affiliates still account for **three-fourths of all** SELECT enrollment in the demonstration states. BCBS affiliates participate in two-thirds of the SELECT states.<sup>22</sup> Although the SELECT market share accounted for by BCBS affiliates has been constant, their early aggressive entry into the program and the large share of enrollment they account for suggests that SELECT is attractive to a significant portion of BCBS plans, and especially to a few BCBS plans that have made a major commitment to this product.

Commercial insurance companies initially showed little interest in SELECT. During the first half of the demonstration, only three companies — **Humana** Insurance Company (and two of its subsidiaries), Bankers Life and Casualty, and Sierra Life — sought approval to sell SELECT products. **Humana** was initially the most active company, with approval to sell SELECT in seven states. Bankers and Sierra were both **affiliated** with Olympic Health Management Systems, a third party administrator that sees SELECT as its principal product.

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<sup>22</sup> Because the 15 SELECT states have a total of 27 BCBS affiliates (Washington alone has nine), these 10 participating BCBS plans represent about one-third of those **affiliates** that are potentially eligible.

Olympic forms partnerships between commercial insurance companies and hospital networks and provides claims processing and marketing services to the partnerships.

Almost all of the insurers that have begun to participate in SELECT during the second half of the demonstration are commercial insurance companies. Counting each company multiple times if it is newly approved in multiple states, 55 of the 58 new issuers approved for SELECT between February and November 1995 were commercial companies. Nine of them are affiliated with Olympic. Furthermore, Bankers and **Humana** have expanded their participation to nine states each, more than any other insurer. Although commercial insurance companies account for two-thirds of the approved SELECT issuers in November 1995, they account for only about 14 percent of enrollment; most of that attributable to **Humana**, Bankers, and Sierra, the three commercial insurance companies that have participated the longest. The BCBS **affiliates** with large **enrollments** that dominated the program in its first half continue to expand their enrollment at a faster pace than the commercial insurers. Most of the newly participating commercial companies have not been approved long enough to have experienced much enrollment. In fact, many of them reported that they had no enrollment in any of their SELECT policies in November 1995.

The most common reason reported by Medigap insurers for not participating in SELECT was that they did not have time to get to it, given the other demands on their time. The start of the program coincided with the standardization of all Medigap products, and many commercial insurers and BCBS affiliates spent their resources obtaining approval for their new unrestricted products. Thus, it is not surprising that since they have adapted to more salient elements of the new OBRA 1990 regulations, they are showing more interest in SELECT.

Although the patterns of enrollment and participation have changed somewhat in the second half of the demonstration, our conclusion in the Case Study Report still holds. While SELECT participation is becoming more widespread in the insurance industry, the impetus still comes from a small number of companies that have long-standing involvement in the Medigap market and access to provider networks. It is too soon to say if the newly approved companies will alter this pattern.

### 8.1.2 Provider Networks

Based on the OBRA 1990 legislation and regulations, it appears that Congress and HCFA both expected SELECT provider networks to be selective in recruiting physicians and to manage the care of beneficiaries. Because SELECT plans are supplemental and are obligated to pay for services that Medicare has already deemed appropriate, the only way SELECT can save money for the Medicare program is to direct beneficiaries to providers who are more cost-effective or less expensive than those they would otherwise use.

In practice, SELECT insurers do not always design their networks in this way. No commercial insurer includes physicians in its SELECT networks. These networks include only hospitals (and sometimes pharmacies for plans **H**, **I**, and **J**), which waive or discount the Medicare Part A deductible for SELECT beneficiaries. Insurers choose this approach because the cost of establishing physician networks is high and they feel that, as the secondary payer, they have little control over which services are used. SELECT plans that use hospital-only networks cover services provided by any physician; they are no different from unrestricted Medigap plans in this respect and do not manage the care of beneficiaries. They achieve premium savings through the waiver or discount of the Part A deductible.

BCBS **affiliates** usually include physicians and hospitals in their networks, but two of the larger ones, in Alabama and Minnesota, include almost all the physicians and hospitals in the state. Networks that include almost all providers are not restricting coverage to those determined to be cost-effective.

## 8.2 Impact on Medicare Beneficiaries

### 8.2.1 Supplemental Insurance Premiums

Medicare SELECT premiums are almost always lower than the premiums offered by the same company for the same benefits package as a standard unrestricted Medicare supplement. This finding is consistent for women at ages 65 and 75.

Medicare SELECT premiums are also lower on average than **Prudential/AARP** premiums for **65-year** old women. However, the SELECT premiums are more expensive on average for **75-year** old women. This reflects the use of attained-age premiums by many

SELECT insurers and **community** rating by **Prudential/AARP**. Attained-age premiums become less attractive compared to issue-age or community rated premiums as age **increases**.

There is also variation in the savings that can be obtained from **SELECT** by type of benefits package. If a **65-year-old beneficiary** is interested in plans C or F, which are among the more frequently offered and purchased, then **SELECT plans** seem to be comparatively inexpensive. However, **SELECT** is comparatively expensive for a **65-year-old beneficiary** interested in plans H, I, or J that provide pharmacy **benefits**.

The source of a substantial portion of these savings for insurers with hospital-only and hospital-physician networks, is the waiver **or discount** of the Part A deductible. However, some hospital-only plans have markedly lower premiums :for Medigap plan A, which does not cover the Part A deductible. Since discounts on the Part A, deductible are the only source of savings for hospital-only plans, the lower **premium** for the **SELECT** version of plan A suggests that premiums are **being** set to encourage or discourage purchase of certain plans. In particular, standard plan A, which is viewed by insurers **as** an inferior product, may be priced high to discourage purchases, which would make **SELECT** look inexpensive by comparison. In theory, the OBRA 1990 loss ratio limit would eventually **restrict** this pricing strategy, but with **so** few persons enrolled in these plans, it is unlikely that reliable. loss **ratios** can be computed. Plans B through J all cover the Medicare Part A deductible, **so** premium differences among these plans are more understandable.

Three caveats apply to these premium **comparisons**, however. First, insurers often use many rate **categories** and we encountered far too many to make comparisons for each one:. Our conclusions are based on premiums for **non-smoking** women **ages** 65 and 75, but they **may** not apply to other categories. Second, comparisons **of** **SELECT** with **standard** premiums for the same benefits package within a single company enable us to control for differences in experience, underwriting policies, and actuarial **judgment**. **However**, they restrict the number of comparisons that can be made because many companies do not **sell** the same benefits plans A through J as both **SELECT** and unrestricted standard products. Third, the comparison with **Prudential/AARP** should not be taken to **mean** that either **SELECT** or **Prudential/AARP** is the least expensive product available **to beneficiaries**.

We have anecdotal information from most of the state insurance departments that lower priced versions of each benefit package are often available. It is hard to say what this means, however. Beneficiaries within six months of their Medicare Part B eligibility can always choose the lowest priced version of the benefits package they want because medical underwriting is prohibited. Beyond this point, however, beneficiaries may not be able to purchase the lowest priced product because they may not qualify. However, **Prudential/AARP** does not underwrite at any age (except for plans H, I, and J which have pharmacy benefits) so it is always available.

OBRA 1990 attempted to reduce confusion among Medicare beneficiaries comparing Medigap products by establishing 10 standard benefit packages. However, the use of **attained-age** premiums by some insurers and issue-age premiums by others continues to make comparison shopping complicated. **In** addition, the innovative benefits provision for SELECT products and the variation among state insurance departments in the way it is applied also complicates comparisons by creating plans that do not conform to the standards.

### **8.2.2 Socioeconomic Factors Affecting the Choice of SELECT**

Minorities and persons in low socioeconomic groups are more likely to purchase a SELECT product than whites and wealthier, and/or better educated beneficiaries. This is consistent with the findings that (1) premium cost is a major factor in the purchase of SELECT and (2) SELECT premiums are comparatively inexpensive for **65-year** old beneficiaries. Lower income beneficiaries are presumably more sensitive to price and are more likely to choose a low priced product.

### **8.2.3 Health Status**

We also found no difference in health status between SELECT beneficiaries and those who purchased standard unrestricted products, based on four measures of self-reported health from the beneficiary survey. **A** difference would suggest selection bias, which could be an alternative explanation for differences in costs. However, the absence of a difference, as we have found, tends to reinforce the conclusion that the findings of the cost analysis are attributable to the SELECT program. The average DRG case mix weight, computed for the 11 states with claims data, showed small differences between SELECT and non-SELECT beneficiaries. However, the SELECT group has a slightly lower average in three of the five

states that show increased costs from **SELECT**, again suggesting that selection bias is an unlikely cause of the apparent **SELECT** impact.

#### 8.2.4 Satisfaction

We found no difference in **satisfaction** with their insurance between **SELECT** beneficiaries and persons who bought standard **unrestricted** products. If beneficiaries who purchase **SELECT**, presumably to obtain lower premiums, are less satisfied than the comparison group, **then** we might conclude that buying **SELECT** is a bad bargain. However, the evidence suggests that the two groups are equally satisfied and **that, holding** all else constant, **SELECT** is a reasonable choice for beneficiaries who are willing to accept **some** restriction in choice of provider to obtain a lower premium.. **The** difficulty for the beneficiary is determining if the lower premium at age 65 is worth a higher premium at age 75, if purchasing **SELECT** means buying an attained-age policy.

#### 8.3 Impact on Medicare Program Costs

We found that, after controlling for individual beneficiary characteristics including health status, the **SELECT** program had a cost-increasing effect in 5 **states** (Alabama, Arizona, Indiana, **Texas**, and Wisconsin), a cost-decreasing effect in **four states** (**California**, Florida, Missouri, and Ohio), and no impact on costs in two states (**Kentucky** and **Minnesota**). In North Dakota, which has an approved **SELECT** plan, **we** were **unable** to identify enough **SELECT** beneficiaries in the Medicare claims data files to obtain reliable **estimates**. Illinois, **Massachusetts**, and Washington had no active **SELECT** plans at the time we **obtained** our beneficiary samples. **The** increases in total costs mainly reflect increases in the cost of ambulatory care; **although** three of the five cost-increasing states show increases in **inpatient** costs as well.

None of the key characteristics of **the** states, **insurers**, or **SELECT** implementation **that** we have focused on in our descriptive work is obviously associated with either a cost-increasing or cost-decreasing effect. For example, we **find hospital-only** networks dominating enrollment in states with cost-increasing (Indiana, Texas), **cost-decreasing** (Ohio, Missouri), and no effects (Kentucky). Furthermore, the impact of **SELECT** on costs seems to be independent of the maturity of the managed care **market**; the participation of BCBS affiliates, **HMOs**, and commercial insurers; enrollment of a high percentage of providers in the **SELECT** network, and the conversion of **pre-OBRA** plans to **SELECT** without a change in benefits.

The original premise of SELECT had been that it would reduce aggregate health care costs because SELECT insurers would have an incentive to establish cost-effective provider networks and then support them in improving health system efficiency. The case study found that, as implemented by most insurers, SELECT is a weak form of managed care. Many SELECT insurers do not include physicians in their provider networks, choosing instead to recruit hospitals that discount or waive the Part A deductible into preferred hospital networks and to cover the Part B deductible and coinsurance for any physician the beneficiary decides to use. Most of the insurers that use physician networks organize them as preferred provider networks, without gatekeepers; again, a relatively weak form of managed care. Thus, on the basis of the case study, we expected to find little, if any, effect of SELECT on utilization or costs. How, then, does one account for the finding that the SELECT plans in several states have apparently increased health care costs? What are the potential mechanisms for effecting such cost increases? We offer two potential explanations.

Like early **PPOs**, some SELECT plans may have contracted with providers on a discounted fee basis and not given sufficient attention to managing the overall efficiency of health care services. In some **first-generation PPOs**, the PPO providers simply recouped their discounts by providing or billing more services. In other instances, the **PPOs** had, in contracting on a percentage discount basis, unwittingly selected the more costly providers (i.e., the ones with greater margins and, **thus**, flexibility to accept a discount). Whatever the mechanism, employers found that the **PPOs** were actually costing them more, much as we are finding with regard to the SELECT experience in several states.

A potential explanation for the effect observed in Wisconsin concerns possible poor access to care in rural areas. In many rural and other underserved areas, Medicare risk-contracting **HMOs** have found that they are unwilling or unable to provide Medicare services within the **AAPCC** experience-based **capitation**. They argue that access barriers have impeded health care use among the fee-for-service population and left traditional Medicare beneficiaries with untreated or inadequately treated problems. They further argue that beneficiaries who belong to an aggressive, multispecialty HMO receive more intensive and expensive treatment than they otherwise would have received from community providers in the fee-for-service system.

Therefore, costs of care among the SELECT beneficiaries, who are served by HMO physicians, would be higher than the costs for the comparison beneficiaries, who are served by other **physicians** in the community. If, as the **HMOs contend**, this pattern reflects poor access among Medicare beneficiaries in rural Wisconsin who are not served by **HMOs**, then the higher costs associated with SELECT might be justified because they derive from better access. On the other hand, if the difference were due to unnecessarily intensive care delivered by HMO physicians, then it would not be justified. In **Wisconsin**, more than half of our SELECT beneficiaries came from three staff-type **HMOs** that had terminated **their** risk arrangements with Medicare because they perceived **that** they could not afford to **provide** care on a community rated basis. This tends to support the hypothesis that the SELECT beneficiaries served by these **HMOs** may, in fact, receive more intensive service from their providers than the comparison beneficiaries from the same regions, who use other providers (although it does not address **the** question of whether more appropriate access **is** achieved).

Another possible explanation, the **hypothesis** that SELECT **products** increase costs in some states by increasing the use of high cost **teaching** and disproportionate share **hospitals**, is not consistently **supported**. Higher inpatient hospital **costs** were associated with higher total costs in only three of the five cost-increasing states (Alabama, Indiana, and Texas). Only in Alabama **were** higher inpatient hospital costs, associated with greater use of teaching and disproportionate share hospitals. In Indiana and Texas, higher hospital costs were associated with lower use of teaching and **disproportionate** share hospitals.

#### **8.4 Evaluation Data Requirements**

Our final conclusion concerns the data needed to conduct an evaluation of a private insurance product using Medicare data. The SELECT program is unlike HCFA-sponsored demonstrations because it is **not** a public program. It **is** a private-sector insurance product that HCFA is responsible for regulating. **HCFA** puts no funds into the program and thus has little leverage to persuade insurers to participate. The **OBRA 1990** Medigap regulations and **model** state statute drafted **by HCFA** and NAIC tried to **address** this issue by requiring SELECT insurers to provide reasonable data for evaluation. However, “reasonable” was not **defined**. **Ultimately**, this section of the regulations contributed significantly to our ability to obtain

cooperation from insurers, but it did nothing to assure that insurers collected the data we needed (nor to assure the participation of non-SELECT insurers needed for the comparison group).

To use Medicare data for the evaluation, we had to identify beneficiaries enrolled in SELECT and competing standard products, and link their identifiers to the Medicare enrollment and claims data. The only reliable identifiers for this purpose are the HIC number or SSN. There is no reason for most insurers to collect either number and several in the study did not. Fortunately, most did and we were able to obtain an adequate match to Medicare data in 11 states. However, several insurers were concerned about the risk of civil and criminal liability from releasing the identity of their subscribers. We were finally able to negotiate confidentiality procedures that satisfied their concerns. However, these negotiations were extended and consumed significant time and resources.

To facilitate future evaluations of this type, Federal and state regulations should specify that the insurance application used by participating insurers must collect the beneficiary's HIC number and must contain a statement that information about the beneficiary's enrollment and use of health care may be shared with the Medicare program for research purposes. The regulations should also require the insurers to record the **HIC** number of all participating beneficiaries, **the UPINs** of all participating physicians, and the medical provider numbers of all participating hospitals in electronic data **files**.

**Appendix A:**  
**Sampling Weight Methods for the Beneficiary Survey**

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